A4700-14 11/89

STATISTICAL YEARBOOK

OF THE ELECTRIC UTILITY INDUSTRY/1988

EDISON ELECTRIC INSTITUTE

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Organized in 1933 and incorporated in 1970, EEI provides a principal forum where electric utility people exchange information on developments in their business, and maintain liaison between the industry and the Federal government. Its officers act as spokesmen for investor-owned electric utility companies on subjects of national interest.

Since 1933, EEI has been a strong, continuous stimulant to the art of making electricity. A basic objective is the "advancement in the public service of the art of producing, transmitting, and distributing electricity and the promotion of scientific research in such field." EEI ascertains factual information, data and statistics relating to the electric industry, and makes them available to member companies, the public, and government representatives.

STATISTICAL YEARBOOK

OF THE ELECTRIC UTILITY INDUSTRY/1988

Published November 1989/Number 56

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PUBLICATIONS PREPARED BY THE STATISTICS DEPARTMENT

Capacity and Generation of Non-Utility Sources of Energy.
Presents statistics compiled from electric utility reports and other sources for 1987 and a limited amount of historical data on capacity and electric generation of non-utility producers of energy (co-generators, small power producers and other non-utility producers). The report contains national data on capacity and generation by year, type of producer and qualifying status; number and size of projects; electric utility receipts from non-utility producers from 1979 through 1987; yearly additions of capacity from 1980 through 1987; type of connection and dispatchability; prime mover; primary energy source; and major industry group. Published annually in the spring. 80p.

Catalogue of Investor-Owned Electric Utility Companies Operating in the United States.
Complete reference of investor-owned electric utility names, addresses and phone numbers, arranged on a state basis according to location of principal office. Holding companies and systems, and jointly-owned companies are cross-referenced with operating subsidiaries. Ranking of companies according to number of ultimate customers is presented. Published annually in the fall. 48p.

Digest of Electric Utility Financial Ratios.
Provides a method of calculation for the predominant ratios used by the industry in analyzing financial reports. Categories of ratios include Earnings and Return; Common Dividend; Coverages, Interest and Preferred Dividend; Balance Sheet; Revenue and Sales; Expense; Tax; Plant; Depreciation; other ratios, such as funds used during construction as percent of earnings and per share, capital expenditures, etc. Prepared by EEI Financial Ratios Subcommittee of the Statistical Committee. 31p.

EEI Pocketbook of Electric Utility Industry Statistics.
A pocket-sized quick reference of national electric utility industry data, some dating from the early 1900's. Categories include data on installed capacity, generation, capital and finance, sales, revenue, customers, fuels and private and pubiic ownership. Published annually in late fall. 36p.

Electric Power Annual Report.
This report presents historical and projected data concerning the electric power supply, expansion of electric generating facilities, and the manufacture of heavy electric power equipment in the U.S. as of the end of the year. Power supply data including peak loads, capability to meet loads, kilowatthour requirements, load factors, and comparison between summer and winter seasons are shown on a total industry basis for each of the nine reliability councils and for total contiguous U.S. Also included are orders and shipment information on the manufacture of heavy electric power equipment in the U.S. and foreign-made equipment to be imported by U.S. electric power systems. Published annually in the fall. 40p.

Floppy Disk Version of EEI Statistical Yearbook.
Contains eighty-eight (88) LOTUS 1-2-3 files that print out as close approximations of the tables in the Statistical Yearbook. Filenames are in the form TABLEnn.WK1. Wherever possible, the same number of years have been included as in the printed version of the Statistical Yearbook. The LOTUS worksheet format facilitates easy extraction and manipulation of data series from the Yearbook tables without re-keying, as well as allowing the options of producing whole tables (or selected parts) in hard copy and LOTUS graphics. There are twenty-four table files on the first disk and thirty-two each on the second and third disks. In addition to a "README" file on the first disk, each floppy contains a FILEINFO.WK1 worksheet file with descriptions of each table's contents, the same data in FILEINFO.PRN form that can be "typed" to the PC screen, and a FILEINFO.COM program with paging, printing, and keyword-finding functions to manipulate the table titles. Available in the winter.

Glossary of Electric Utility Terms.
Defines the principal statistical reporting terms commonly used in the electric utility industry. Since the last revision in 1970 the Glossary has been expanded to include information and terms on Load Management/Rate Design, Nuclear Generation and additional terms on financial and general operations. Prepared by the EEI Glossary of Electric Terms Subcommittee of the Statistical Committee. 56p.

Guidelines for Defining & Classifying Electric Customers by Major Energy Use.
Provides guidelines within the electric utility industry for counting, classifying, and summarizing customers, categorizing sales and revenues by major energy use, and determining average use and average revenue per customer. The report contains definitions as well as the application of the definitions to specific situations and problem areas. Historically, the industry has based its classifications on rate schedules and it is probable that the recommendations in this report are unsuitable for rate analysis. However, the recommendations are offered as a basis for making a more significant market-oriented representation of sales statistics available to the industry, security analysts, and others with interest in electric utilities. 8p.

Post-Summer Electric Power Survey.
Reports results of a scheduled generating additions survey as of July 1, and a summer peak load survey as of September 15. There are listings of actual additions to generating capacity during the first half of the year and of scheduled for the future. Con-

tains first actual regional capability, peak load, and percent capacity margin values for the summer season just completed. NERC's latest ten-year fuel projections are presented in terms of both regional generation from each energy source, and in physical units of coal, oil and gas to be burned for electric generation. Also includes information on the manufacture of heavy electric power equipment in the U.S. and foreign-made equipment to be imported by U.S. electric utility systems, orders and shipments during the first half and shipment backlogs as of July 1. Published early the next year. 40p.

Problems and Limitations of Intercompany Comparisons of Investor-Owned Electric Utilities.
Assists analysts and others who may wish to make industry-wide comparisons of investor-owned electric utilities. The report illustrates some of the main factors that can facilitate valid intercompany differences in performances. The Executive Summary briefly examines some of the more important factors that lead to performance differences between companies. The Discussion Section covers in greater detail many of the factors that can generate invalid and inaccurate comparisons. Prepared by EEI Problems and Limitations Subcommittee of the Statistical Committee. 51p.

Statistical Releases.
Yearly subscription includes: 1) Electric Output, issued weekly for nine geographic divisions and total U.S.; data for latest 52-week period and calendar year to date; latest quarterly data for installed capacity, generation, customers and sales 2) Quarterly Statistical Report, presents latest sources of electricity, including net generation, net imports of electricity, and net amounts available for distribution; customers, sales, and revenues by class of electric service; average use and revenue data 3) Advance Release, issued in summer, includes selected tables that appear later in Statistical Yearbook 4) Statistical Yearbook of the Electric Utility Industry.

Statistical Yearbook of the Electric Utility Industry.
Data compiled from company reports and other sources on operational and financial aspects of the total electric utility industry. Categories include national and state statistics on installed capacity; electric generation and supply; sales, revenue and customers by class of service; investor-owned data are presented for operating and related ratios; fuel use; financial; and general economics series. Prepared under the general guidance of the EEI Statistical Committee. Published annually in the fall. 101p.

Statistics on Fuel Used to Generate Electricity by the Electric Utility Industry.
Fuel data are presented for the United States by state and Census Division, detailed by type of fuel (coal, oil, natural gas and nuclear) for both the Total Electric Utility Industry and the Investor-Owned segment. Heat rate, average Btu content, and cost of fuel per kilowatthour, per million Btu, and per unit consumed are shown for the most recent and four preceding years. Published annually in the fall. 75p.

Order card located in back of book.

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Scope and Coverage

This publication presents data on the electric utility industry, including generation, energy sales, customers and revenues, financial and economic. These data are collected and compiled from various sources as indicated on page 3. In all sections, except the Financial Section, data are presented for Investor-Owned Electric Utilities and the Total Electric Utility Industry. Dissimilarity between the investor-owned and the publicly-owned segments of the electric utility industry would make overall financial data incompatible even if it were available. Therefore, in the Financial Section, data are shown for Investor-Owned Electric Utilities only.

1988 in Review

The installed generating capacity of the electric utility industry at December 31, 1988 was 723,852 megawatts, an increase of 0.8 percent over December 31, 1988.

No. of units added during 1988

Hydro	Conventional Steam	Nuclear Steam	Internal Combustion
3	4	5	9

Statistics on capacity and generation from pumped storage are included in hydroelectric and those for gas turbine are included in conventional steam.

Comparison of the 1988 and 1987 total electric utility industry generation data shows the following:

- Generation of electricity in the United States increased approximately 5.0 percent.
- Generation by oil increased 25.6 percent and represented 5.5 percent of total generation.
- Generation by hydroelectric power decreased 10.7 percent and natural gas production decreased 7.3 percent. Hydroelectric power and natural gas represented 8.3 percent and 9.4 percent, respectively, of total generation.
- Generation by nuclear power plants increased 15.7 percent and represented 19.5 percent of total generation. Generation from coal-fired units increased 5.1 percent and represented 56.9 percent of total generation.

Electric output, representing the total amount of electricity available for distribution, was 5.0 percent higher in 1988 than in 1987. The heat of the summer contributed to the highest weekly electric output to date in the week ending August 6, 1988, showing a record of 65.4 billion kilowatthours.

Energy sales to ultimate customers totalled 2,550 billion kilowatthours, an increase of approximately 4.7 percent over the previous year. Total utility revenues from ultimate customers were $162.2 billion in 1988, an increase of 4.2 percent over the previous year. Revenues increased 5.1 percent and 4.8 percent from residential and commercial customers, respectively, and industrial revenues increased 2.4 percent.

The total number of ultimate customers at December 31, 1988 was 106,349,848. Approximately 88.3 percent of this total were residential customers. In 1988 residential customers increased 1.6 percent from 1987. In the last 10 years residential customers have increased 20.7 percent.

Total electric operating revenues for the investor-owned electric utilities increased 4.0 percent in 1988 to $134.6 billion. Contributing to the increase in revenues were economic growth and warmer than normal summer weather. Electric operating expenses increased $3.3 billion. The cost of fuel represented 42.4 percent of total operation and maintenance expenses, down from 44.3 percent in 1987. Electric operating income increased 6.6 percent to $28.8 billion. Despite the increase in operating income, earnings per share before Extraordinary Items and the Cumulative Effect of a change in accounting principle decreased from $2.60 in 1987 to $2.34 in 1988. Write-offs and disallowances contributed to this decrease. Retained earnings reached $48.3 billion, a 5.1 percent decrease over the $50.9 billion recorded in 1987.

In 1988 electric plant construction expenditures for the investor-owned electric utilities decreased to $23.6 billion (including nuclear fuel) from $27.0 billion in 1987. Of this 1988 total, $2.7 billion was the allowance for funds used during construction (AFUDC), a non-cash item of current income which is added to the plant account for future collection.

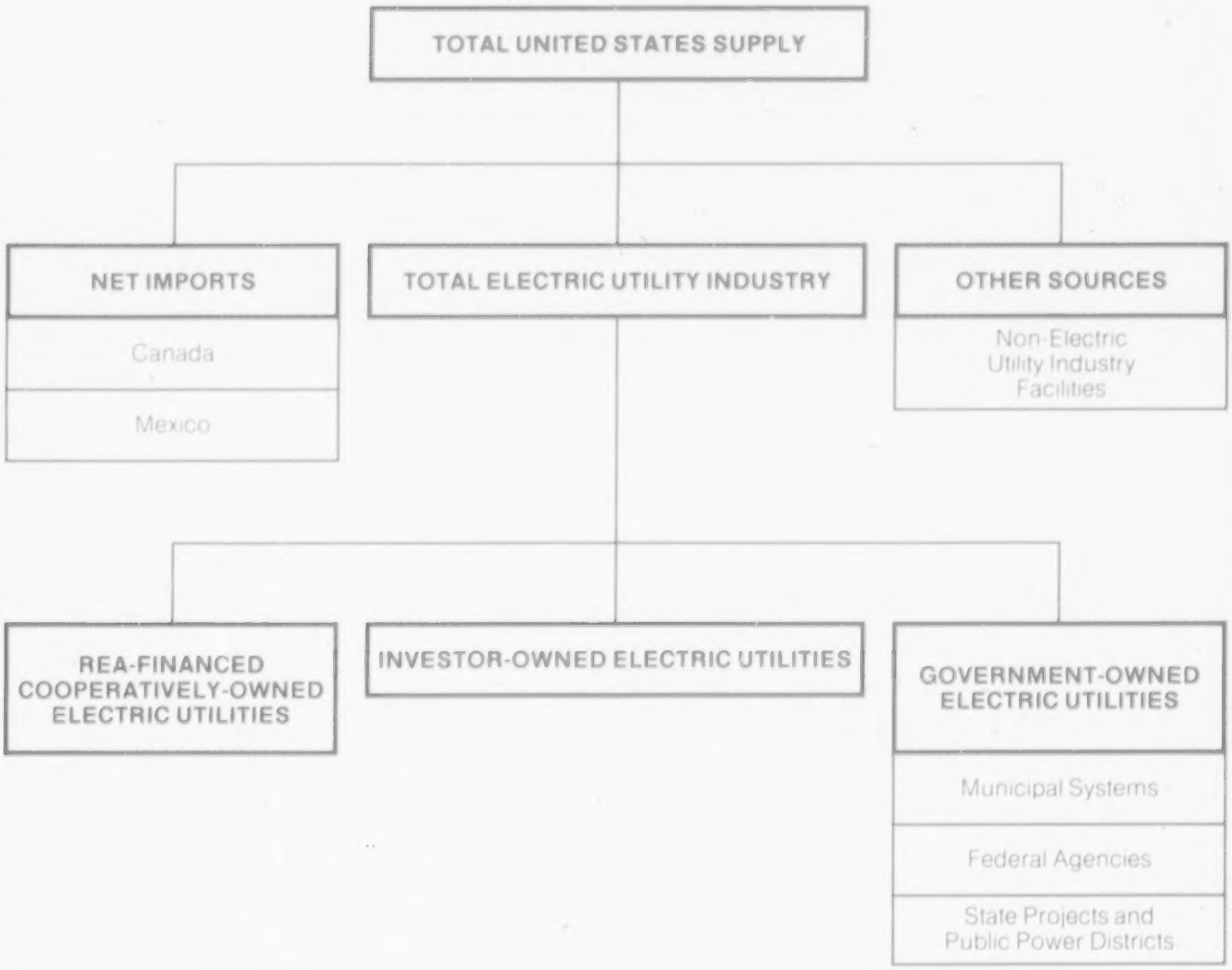
Total interest charges equalled $14.4 billion up 6.2 percent when compared to 1987. The average interest rate on new long-term debt issued during 1988 was 10.2 percent.

Since 1976 long-term debt as a percentage of total capitalization has gradually declined from 51.9 to 49.0 percent in 1988. During the same period, common capital stock equity increased from 35.5 to 43.3 percent.

The average common stock dividend payout ratio before extraordinary items increased 84.6 percent in 1988 from 75.8 percent in 1987. The earned return on average common equity before extraordinary items averaged 10.6 percent, down from 11.9 percent in 1987. During 1988, the investor-owned electric utilities were granted an estimated $2.1 billion in rate increases on an annualized basis. This is 8.9 percent below the $2.3 billion granted in 1987. AFUDC as a percentage of net income after preferred dividends and before common dividends was 21.9 percent.

In 1988 the investor-owned electric utilities raised $7.9 billion in new long-term financing, a 22.5 percent decrease from 1987. Of this total, 86.6 percent was long-term debt, 7.0 percent was preferred stock and the remaining 6.4 percent was common stock. Additionally, the industry raised an estimated $1.0 billion in new equity as a result of participation by stockholders in dividend reinvestment plans. The new equity capital included not only dividend reinvestment, but also supplementary cash contributions by stockholders.

UNITED STATES SOURCES OF ELECTRIC GENERATION BY TYPE OF OWNERSHIP



	Total Electric Utility Industry			
			Increase	
	1988	1987	Amount	Percent
GENERATING CAPACITY – SECTION I (kW in Thousands)				
Installed Name Plate at Beginning of Year	718,056	707,684	10,372	1.5
Added During Year				
Retired During Year				
Net Adjustments*				
Balance at December 31	723,852	718,056	5,796	0.8
ELECTRIC POWER SUPPLY – SECTION II (kW in Thousands)				
Capability at Time of Summer Peak Load (Contiguous U.S.)	661,580	648,118	13,462	2.1
Non-Coincident Summer Peak Load (Contiguous U.S.)	529,460	496,185	33,275	6.7
Capacity Margin (Contiguous U.S.)	20.0%	23.4%		
GENERATION – SECTION III (kWh in Millions)				
Hydro	222,938	249,695	(26,757)	(10.7)
Conventional Steam	1,950,013	1,865,463	84,550	4.5
Nuclear Steam	526,901	455,270	71,631	15.7
Internal Combustion	1,762	1,685	77	4.6
Total Generation	2,701,624**	2,572,127**	129,497	5.0
Received from Industrial Sources	71,512	52,628	18,884	35.9
Imports from Canada and Mexico	38,837	52,219	(13,382)	(25.6)
Total Energy Input†	2,811,973**	2,676,974**	134,999	5.0
FUEL – SECTION IV				
Average Cost of Fuel per net kWh	1.76¢	1.84¢	(0.08)¢	(4.3)
Lbs. of Coal per Net kWh Generated	0.985	0.981	(0.004)	(0.4)
Average Btu per Net kWh Generated	10,328	10,354	(26)	(0.3)
ENERGY – SECTION V (BTUs in Quadrillion)				
Annual Production of Energy	65.88p	64.82r	1.06	1.6
Total Energy Supply & Disposition	84.34p	80.62r	3.72	4.6
ENERGY SALES – SECTION VI (kWh in Millions)				
Residential	885,146p	846,457r	38,689	4.6
Commercial	695,181p	658,445r	36,736	5.6
Industrial	880,947p	843,709r	37,238	4.4
Street and Highway Lighting	14,537p	14,386r	151	1.0
Other	74,100p	72,486r	1,614	2.2
Total Sales to Ultimate Customers	2,549,909p	2,435,483r	114,426	4.7
Exports to Canada and Mexico	7,067	5,881	1,186	20.2
Energy Accounted for but Not Sold	8,704p	10,513r	(1,809)	(17.2)
Lost and Unaccounted for	246,293p	225,097r	21,196	9.4
Total Disposition of Energy†	2,811,973p	2,676,974r	134,999	5.0
kWh Used per Customer (Average for Year)				
Residential	9,495p	9,236r	259	2.8
Commercial	60,263p	58,409r	1,854	3.2
Total Ultimate Customer	24,144p	23,472r	672	2.9
CUSTOMERS AT YEAR END – SECTION VII (Thousands)				
Residential	93,868p	92,399r	1,469	1.6
Commercial	11,630p	11,386r	244	2.1
Industrial	493p	488r	5	1.0
Street and Highway Lighting	170p	165r	5	3.0
Other	190p	186r	4	2.2
Total Ultimate Customers	106,350p	104,624r	1,726	1.6
REVENUES – SECTION VIII (Millions of Dollars)				
Residential	$ 66,274p	$ 63,049r	$ 3,225	5.1
Commercial	49,007p	46,745r	2,262	4.8
Industrial	41,619p	40,631r	988	2.4
Street and Highway Lighting	1,504p	1,509r	(5)	(0.3)
Other	3,784p	3,766r	18	0.5
Total Revenues from Ultimate Customers	$ 162,188p	$ 155,700r	$ 6,488	4.2
Exports to Canada and Mexico	61	33	28	84.8
Total Revenues from Sales of Energy	$ 162,249p	$ 155,733r	$ 6,516	4.2
Average Annual Revenue per Customer				
Residential	$ 710.90p	$ 687.95r	$ 22.95	3.3
Commercial	$4,248.32p	$4,146.61r	$101.71	2.5
Total Ultimate Customers	$1,535.67p	$1,500.59r	$ 35.08	2.3
Average Revenue per kWh				
Residential	7.49¢p	7.45¢r	0.04¢	0.5
Commercial	7.05¢p	7.10¢r	(0.05)¢	(0.7)
Total Ultimate Customer	6.36¢p	6.39¢r	(0.03)¢	(0.5)
ECONOMICS & OTHER – SECTION X				
Miles of Overhead Electric Line, 22 kV and Above	620,628p	615,842r	4,786	0.8
Employees of Investor-Owned Electric Utilities	513,742	523,868	(10,126)	(1.9)
Plant Ratio-kWh Generated/kW of Capacity‡	3,747	3,608	139	3.9

Note: Total may not equal sum of components due to independent rounding.

**Represents reclassification in ownership between industrial and electric utility plants and rerating of turbines within the Electric Utility Industry.*

***Total includes generation by wind (1987-3.5 kWh in millions; 1988-0.9 kWh in millions) and generation by solar (1987-10.5 kWh in millions; 1988-9.1 kWh in millions).*

†Excludes industrial for own use. ‡On basis of installed name plate capacity.

p Preliminary. r Revised. ( ) Denotes negative figure.

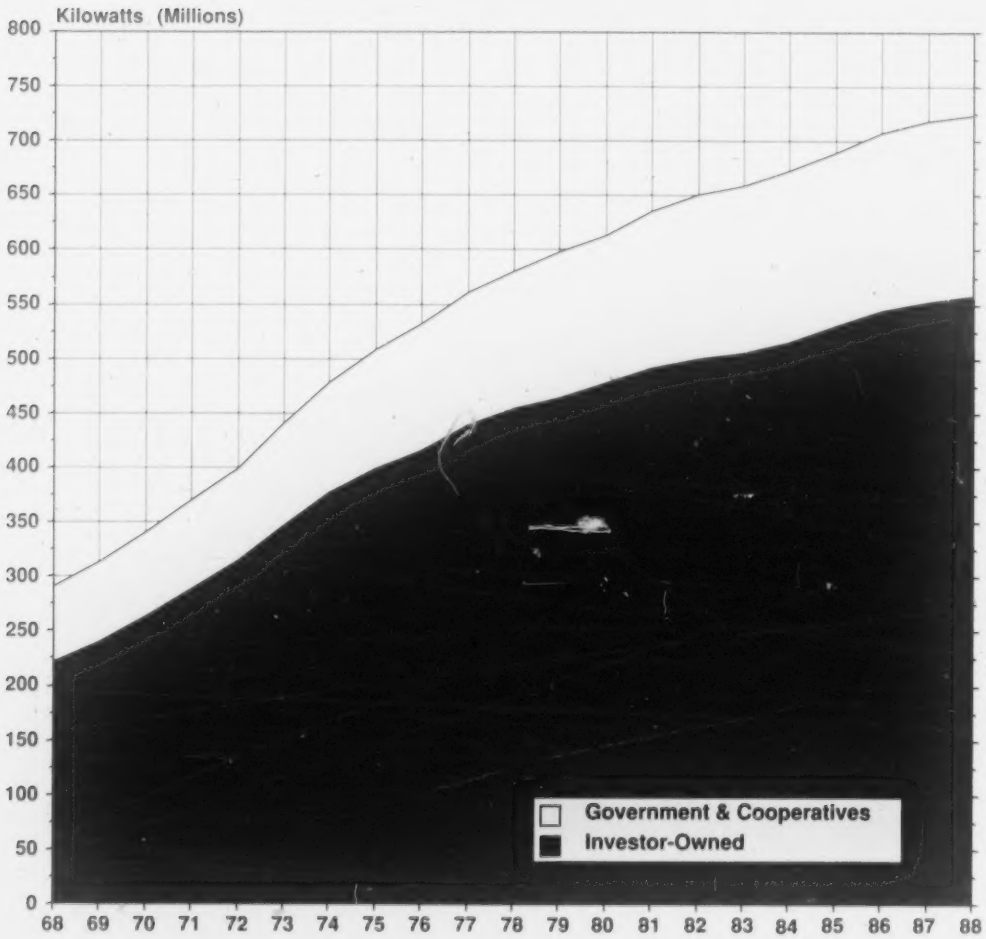
FINANCIAL – SECTION IX (Millions of Dollars)	Investor-Owned Electric Utilities 1988	1987	Increase Amount	Increase Percent
COMBINED BALANCE SHEETS				
ASSETS				
Utility Plant				
Electric	$415,470p	$387,154	$28,316	7.3
Other	22,345p	21,886	459	2.1
Total Utility Plant	437,815p	409,039	28,776	7.0
Accumulated Provision for Depreciation and Amortization	123,517p	112,029	11,488	10.3
Net Utility Plant	314,298p	297,011	17,287	5.8
Nuclear Fuel	19,518p	18,440	1,078	5.8
Accumulated Provision for Amortization of Nuclear Fuel Assemblies	10,374p	8,697	1,677	19.3
Net Nuclear Fuel	9,144p	9,744	(600)	(6.2)
Construction Work in Progress	39,914p	51,510	(11,596)	(22.5)
Net Total Utility Plant	363,356p	358,264	5,092	1.4
Other Property and Investment	16,212p	15,174	1,038	6.8
Total Current and Accrued Assets	41,116p	41,515	(399)	(1.0)
Total Deferred Debits	27,792p	24,916	2,876	11.5
Total Assets	$448,477p	$439,869	$ 8,608	2.0
CAPITALIZATION AND LIABILITIES				
Capitalization				
Common Capital Stock	$ 58,351p	$ 53,367	$ 4,984	9.3
Other Paid-In Capital Excluding Retained Earnings	35,891p	37,006	(1,115)	(3.0)
Retained Earnings	48,324p	50,904	(2,580)	(5.1)
Total Common Capital Stock Equity	142,567p	141,277	1,290	0.9
Preferred Stock	25,394p	26,661	(1,267)	(4.8)
Total Long-Term Debt	161,176p	156,181	4,995	3.2
Total Capitalization	329,137p	324,120	5,017	1.5
Total Other Non-Current Liabilities	6,466p	6,648	(182)	(2.7)
Total Current and Accrued Liabilities	44,481p	44,715	(234)	(0.5)
Total Deferred Credits and Operating Reserves	25,058p	24,678	380	1.5
Contributions in Aid of Construction	157p	174	(17)	(9.8)
Deferred Income Taxes	43,178p	39,535	3,643	9.2
Total Liabilities	$448,477p	$439,869	$ 8,608	2.0
COMBINED INCOME STATEMENTS				
Operating Revenues – Electric Department	$134,556p	$129,437	$ 5,119	4.0
Operating Expenses Including Maintenance	74,183p	69,997	4,186	6.0
Depreciation, Depletion and Amortization	14,091p	12,714	1,377	10.8
Deferred Expenses	(930)p	(1,110)	180	N/M
Taxes	18,421p	20,828	(2,407)	(11.6)
Total Operating Expenses	105,765p	102,429	3,336	3.3
Operating Income	28,790p	27,008	1,782	6.6
Other Income (Non-Operating), Net	1,962p	4,700	(2,738)	(58.3)
Other Departments	893p	1,069	(176)	(16.5)
Income before Interest Charges (Gross Income)	31,645p	32,777	(1,132)	(3.5)
Total Interest Charges	14,448p	13,605	843	6.2
Income before Extraordinary Items	17,197p	19,172	(1,975)	(10.3)
Extraordinary Items	(1,431)p	(1,127)	(304)	N/M
Net Income	15,765p	18,045	(2,280)	(12.6)
Preferred Dividend Charges	2,008p	2,306	(298)	(12.9)
Available for Common Stock	13,757p	15,739	(1,982)	(12.6)
Common Dividends	12,967p	12,668	299	2.4
Net Income After Dividends	$ 790p	$ 3,071	$ (2,281)	(74.3)
Electric Utility Financing				
Long-Term Debt	$ 9,901	$ 13,926	$ (4,025)	(28.9)
Preferred Stock	748	1,958	(1,210)	(61.8)
Common Stock	503	246	257	104.5
Total Capital	$ 11,151	$ 16,130	$ (4,979)	(30.9)
Construction Expenditures				
Production	$ 10,000p	$ 14,395	$ (4,395)	(30.5)
Transmission	1,953p	2,066	(113)	(5.5)
Distribution	8,175p	7,457	718	9.6
Other	3,505p	3,117	388	12.4
Total	$ 23,634p	$ 27,035	$ (3,401)	(12.6)

Note: Total may not equal sum of components due to independent rounding.
( ) Denotes negative figure. N/M Not Meaningful.

GENERATING CAPACITY
SECTION I

CHART I-A

INSTALLED GENERATING CAPACITY
TOTAL UNITED STATES



Based on Table 1, page 7.
Sources:U.S. Department of Energy - Energy Information Administration. Monthly Power Plant Report *(EIA-759),* Annual Electric Generator Report *(EIA-860), and* Annual Electric Utility Report *(EIA-861).*

TABLE 1

INSTALLED GENERATING CAPACITY IN THE UNITED STATES

KILOWATTS IN THOUSANDS (NAME PLATE)

At December 31st	Investor-Owned Utilities	Government and Cooperatives	Total Electric Utility Industry	Other Sources*	Total United States
1988	**557,756**	**166,097**	**723,852**	**N/A**	**723,852****
1987	552,795	165,261	718,056	30,015r	748,071r
1986	544,199	163,485	707,684	25,321	733,005
1985	530,405	158,328	688,733	22,920	711,653
1984	514,863	157,600	672,462	17,371e	689,833
1983	505,487	152,695	658,182	16,765e	674,947
1982	499,111	150,994	650,105	16,938e	667,043
1981	490,767	144,041	634,808	17,142e	651,950
1980	477,083	136,612	613,695	17,323e	631,018
1979	464,144	134,299	598,443	17,436	615,879
1978	453,647	125,665	579,312	19,391	598,703
1977	438,385	121,976	560,361	19,245	579,606
1976	415,504	115,658	531,162	19,113	550,275
1975	399,036	109,378	508,414	19,177	527,591
1974	376,122	100,046	476,168	19,351	495,519
1973	346,476	93,399	439,875	19,377	459,252
1972	314,353	84,400	398,753	18,768	417,521
1971	288,301	80,779	369,080	19,297	388,377
1970	262,675	78,415	341,090	19,237	360,327
1969	240,078	73,271	313,349	19,257	332,606
1968	220,766	70,292	291,058	19,123	310,181

Note: Total may not equal sum of components due to independent rounding.
** Includes non-electric utility industry facilities.*
*** Excludes Other Sources.*
N/A Not Available.
r Revised. e Estimated.
Sources: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report (EIA-759), Annual Electric Generator Report (EIA-860), Annual Electric Utility Report (EIA-861), *and Edison Electric Institute.*

TABLE 2

INSTALLED GENERATING CAPACITY TOTAL ELECTRIC UTILITY INDUSTRY

BY OWNERSHIP AND TYPE OF PRIME MOVER DRIVING THE GENERATOR
KILOWATTS IN THOUSANDS (NAME PLATE)

At December 31st	Total Electric Utility Industry	Investor-Owned Utilities	Cooperatives	Subtotal Government	Municipal Utilities	Federal	Power Districts, State Projects
TOTAL (Capacity of Generators Driven by All Types of Prime Mover)							
1988	**723,852**	**557,756**	**26,383**	**139,714**	**40,388**	**63,932**	**35,393**
1987	718,056	552,795	26,359	138,902	39,378	64,666	34,858
1986	707,684	544,199	26,430	137,055	38,584	63,864	34,607
1985	688,733	530,405	24,574	133,754	37,017	63,710	33,027
1984	672,462	514,863	24,738	132,862	36,717	63,304	32,841
1983	658,182	505,487	22,202	130,493	36,598	62,973	30,923
1982	650,105	499,111	21,463	129,530	35,819	62,544	31,168
1981	634,808	490,767	18,406	125,635	35,125	60,982	29,527
1980	613,695	477,083	15,422	121,190	34,598	59,083	27,509
1979	598,443	464,144	13,837	120,462	34,525	58,346	27,591
1978	579,312	453,647	11,635	114,030	34,426	54,282	25,322
1977	560,361	438,385	10,889	111,087	33,291	53,183	24,613
1976	531,162	415,504	9,947	105,711	30,602	51,707	23,402
1975	508,414	399,036	9,136	100,242	28,787	50,133	21,322
1974	476,168	376,122	7,474	92,572	27,324	45,518	19,730
1973	439,875	346,476	7,288	86,111	24,956	44,520	16,635
1972	398,753	314,353	6,704	77,696	23,049	40,408	14,239
1971	369,080	288,301	5,470	75,309	21,992	39,656	13,661
1970	341,090	262,675	5,162	73,253	20,941	38,718	13,594
1969	313,349	240,078	4,318	68,953	20,035	36,130	12,788
1968	291,058	220,766	3,434	66,858	19,429	34,956	12,473
HYDRO (Capacity of Generators Driven by Water Wheels and Turbines)							
1988	**86,886**	**29,680**	**169**	**57,037**	**5,467**	**38,713**	**12,856**
1987	85,910	29,149	113	56,648	5,401	38,438	12,809
1986	85,165	28,949	116	56,100	5,952	37,636	12,512
1985	83,015	27,571	104	55,340	5,159	37,631	12,550
1984	80,590	26,127	81	54,382	4,850	37,139	12,393
1983	78,968	24,977	81	53,910	4,781	36,803	12,326
1982	78,128	24,584	81	53,464	4,729	36,378	12,357
1981	77,145	24,319	67	52,759	4,686	35,891	12,182
1980	76,378	24,227	67	52,084	4,692	35,212	12,180
1979	75,351	23,916	67	51,368	4,693	34,495	12,180
1978	71,014	23,847	67	47,100	4,694	30,431	11,975
1977	68,762	23,158	67	45,537	4,431	29,332	11,774
1976	67,757	23,134	67	44,556	4,010	29,031	11,515
1975	65,949	23,115	67	42,767	3,760	27,480	11,527
1974	63,560	22,737	54	40,769	3,814	25,447	11,508
1973	61,782	21,770	56	39,956	3,334	25,582	11,040
1972	56,386	19,122	54	37,210	3,330	24,336	9,544
1971	55,912	19,076	54	36,782	3,260	24,056	9,466
1970	55,056	18,850	56	36,150	3,195	23,499	9,456
1969	52,753	18,444	56	34,253	3,195	22,054	9,004
1968	51,168	18,337	57	32,774	3,177	20,905	8,692
CONVENTIONAL STEAM (Capacity of Generators Driven by Steam Engines and Turbines)							
1988	**526,564**	**432,556**	**25,916**	**68,091**	**30,722**	**20,177**	**17,192**
1987	524,286	431,677	25,950	66,659	29,629	20,326	16,704
1986	524,136	432,601	25,963	65,571	28,495	20,326	16,750
1985	520,299	433,103	24,098	63,098	27,764	20,177	15,156
1984	516,537	429,047	24,278	63,212	27,788	20,244	15,181
1983	507,136	422,944	21,767	62,424	27,737	20,244	14,444
1982	503,804	420,863	21,011	61,930	27,026	20,246	14,658
1981	491,287	413,571	17,939	59,778	26,199	20,392	13,187
1980	475,276	403,031	14,954	57,291	25,697	20,393	11,201
1979	462,999	392,349	13,375	57,275	25,599	20,378	11,298
1978	449,231	383,024	11,073	55,134	25,511	20,378	9,245
1977	436,426	371,976	10,429	54,021	24,590	20,378	9,053
1976	415,181	355,263	9,061	50,857	22,396	20,355	8,106
1975	397,649	340,907	8,264	48,478	20,843	20,332	7,303
1974	375,940	323,490	7,017	45,433	20,395	18,899	6,139
1973	352,072	303,536	6,836	41,700	18,511	18,917	4,272
1972	322,201	279,129	6,254	36,818	16,895	16,052	3,871
1971	299,996	260,016	5,018	34,962	16,026	15,576	3,360
1970	275,191	236,792	4,761	33,638	15,141	15,194	3,303
1969	252,411	217,196	3,925	31,290	14,291	14,051	2,948
1968	233,095	199,285	3,031	30,779	13,807	14,026	2,946

See page 9 for footnotes.

TABLE 2 (continued)

INSTALLED GENERATING CAPACITY
TOTAL ELECTRIC UTILITY INDUSTRY

BY OWNERSHIP AND TYPE OF PRIME MOVER DRIVING THE GENERATOR
KILOWATTS IN THOUSANDS (NAME PLATE)

At December 31st	Total Electric Utility Industry	Investor-Owned Utilities	Cooperatives	Subtotal Government	Municipal Utilities	Federal	Power Districts, State Projects
NUCLEAR STEAM (Capacity of Generators Driven by Nuclear Reactors)							
1988	**103,397**	**92,103**	**–**	**11,294**	**963**	**5,037**	**5,294**
1987	101,604	89,450	–	12,154	963	5,897	5,294
1986	92,417	80,213	50	12,154	963	5,897	5,294
1985	80,397	68,238	50	12,109	963	5,897	5,249
1984	70,484	58,380	50	12,054	963	5,897	5,194
1983	67,073	56,069	50	10,954	963	5,897	4,094
1982	63,042	52,038	50	10,954	963	5,897	4,094
1981	60,776	50,992	50	9,734	963	4,677	4,094
1980	56,488	47,960	50	8,478	963	3,456	4,059
1979	54,593	46,065	50	8,478	963	3,456	4,059
1978	53,527	44,984	65	8,478	963	3,456	4,059
1977	49,880	41,654	55	8,171	963	3,456	3,752
1976	42,918	35,419	480	7,019	963	2,304	3,752
1975	39,754	33,539	480	5,735	963	2,304	2,468
1974	31,662	28,397	55	3,210	–	1,152	2,058
1973	21,118	19,766	53	1,299	–	–	1,299
1972	15,302	14,449	53	800	–	–	800
1971	8,688	7,833	55	800	–	–	800
1970	6,493	5,693	–	800	–	–	800
1969	3,980	3,180	–	800	–	–	800
1968	2,817	2,017	–	800	–	–	800
INTERNAL COMBUSTION (Capacity of Generators Driven by Internal Combustion Engines)							
1988	**6,999**	**3,416**	**298**	**3,285**	**3,233**	**–**	**52**
1987	6,212	2,484	296	3,432	3,381	–	52
1986	5,944	2,420	301	3,224	3,171	–	52
1985	5,001	1,477	322	3,202	3,130	*	72
1984	4,841	1,306	330	3,205	3,115	17	73
1983	4,996	1,494	304	3,198	3,117	22	58
1982	5,131	1,627	321	3,182	3,101	22	60
1981	5,600	1,885	351	3,364	3,278	22	65
1980	5,553	1,865	351	3,337	3,246	22	69
1979	5,500	1,814	345	3,341	3,270	17	54
1978	5,540	1,792	430	3,318	3,258	17	43
1977	5,293	1,597	338	3,358	3,307	17	34
1976	5,306	1,688	339	3,279	3,233	17	29
1975	5,062	1,475	325	3,262	3,221	17	24
1974	5,006	1,498	348	3,160	3,115	20	25
1973	4,903	1,404	343	3,156	3,111	21	24
1972	4,864	1,653	343	2,868	2,824	20	24
1971	4,484	1,376	343	2,765	2,706	24	35
1970	4,350	1,340	345	2,665	2,605	25	35
1969	4,205	1,258	337	2,610	2,549	25	36
1968	3,978	1,127	346	2,505	2,445	25	35
WIND† (Capacity of Generators Driven by Wind Turbines)							
1988	**4**	*	*	**4**	*	**4**	–
1987	26	22	–	4	*	4	–
1986	8	3	–	4	*	4	–
1985	7	3	–	4	*	4	–
1984	10	3	–	7	*	7	–
1983	9	3	–	7	–	7	–
SOLAR‡ (Capacity of Generators Driven by Photovoltaic and Solar Thermal Energy)							
1988	**2**	*	–	**2**	**2**	–	–
1987	17	13	–	4	4	–	–
1986	15	13	–	2	2	–	–
1985	14	13	–	1	1	–	–
1984	1	–	–	1	1	–	–

Note: Total may not equal sum of components due to independent rounding.
**Less than five hundred kilowatts.*
† Prior to 1983 capacity by wind not available.
‡ Prior to 1984 capacity by solar not available.
Sources: U.S. Department of Energy. Energy Information Administration. Monthly Power Plant Report *(EIA-759),* Annual Electric Generator Report *(EIA-860), and* Annual Electric Utility Report *(EIA-861).*

TABLE 3

INSTALLED GENERATING CAPACITY
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND TYPE OF PRIME MOVER DRIVING THE GENERATOR
AT DECEMBER 31st, 1987 and 1988—KILOWATTS IN THOUSANDS (NAMEPLATE)

	Total Electric Utility Industry†		Hydro		Conventional Steam		Nuclear Steam		Internal Combustion	
Division/State	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
Total United States	**723,852**	**718,056**	**86,886**	**85,910**	**526,564**	**524,286**	**103,397**	**101,604**	**6,999**	**6,212**
Maine	2,366	2,352	354	340	1,104	1,104	864	864	44	44
New Hampshire	1,405	1,405	262	262	1,143	1,143	–	–	–	–
Vermont	1,112	1,104	358	350	170	170	563	563	20	20
Massachusetts	10,005	10,013	1,656	1,656	7,265	7,280	863	863	221	214
Rhode Island	273	273	2	2	243	243	–	–	29	29
Connecticut	7,415	7,377	133	133	3,512	3,493	3,425	3,425	345	326
New England	**22,576**	**22,525**	**2,764**	**2,742**	**13,438**	**13,434**	**5,715**	**5,715**	**659**	**633**
New York	33,169	33,172	5,024	5,034	22,797	22,797	5,234	5,234	115	107
New Jersey	14,631	14,670	387	387	10,076	10,089	4,160	4,160	8	34
Pennsylvania	35,884	35,941	1,858	1,916	25,533	25,533	8,419	8,418	74	74
Middle Atlantic	**83,684**	**83,783**	**7,269**	**7,337**	**58,406**	**58,418**	**17,813**	**17,812**	**197**	**215**
Ohio	27,594	27,578	119	119	25,143	25,126	2,215	2,215	117	117
Indiana	21,528	21,528	94	94	21,193	21,192	–	–	242	242
Illinois	36,862	35,961	14	14	22,471	22,796	13,734	12,509	643	642
Michigan	24,152	24,094	2,343	2,329	17,127	17,026	4,326	4,387	356	352
Wisconsin	11,240	11,585	447	408	9,110	9,398	1,583	1,583	101	196
East North Central	**121,377**	**120,745**	**3,017**	**2,964**	**95,043**	**95,538**	**21,858**	**20,694**	**1,459**	**1,549**
Minnesota	9,363	9,282	145	139	7,199	7,103	1,755	1,755	262	265
Iowa	8,491	8,574	130	130	7,391	7,461	597	597	373	386
Missouri	16,641	16,557	1,064	1,064	14,012	13,926	1,236	1,236	329	331
North Dakota	4,683	4,684	517	517	4,141	4,141	–	–	25	25
South Dakota	2,648	2,637	1,694	1,683	893	893	–	–	60	60
Nebraska	5,730	5,816	182	182	3,952	4,036	1,338	1,338	258	260
Kansas	10,741	10,485	2	2	8,937	8,682	1,236	1,236	566	565
West North Central	**58,296**	**58,035**	**3,734**	**3,718**	**46,526**	**46,242**	**6,161**	**6,161**	**1,874**	**1,894**
Delaware	1,899	1,900	–	–	1,892	1,892	–	–	7	8
Maryland	10,418	10,457	494	531	7,790	7,790	1,829	1,829	306	307
District of Columbia	868	868	–	–	868	868	–	–	–	–
Virginia	13,642	13,643	2,983	2,983	6,984	6,984	3,655	3,655	21	22
West Virginia	15,163	15,152	175	175	14,988	14,977	–	–	–	–
North Carolina	20,887	20,828	1,948	1,948	13,810	13,751	5,125	5,125	4	4
South Carolina	16,266	16,325	2,348	2,348	7,117	7,177	6,799	6,799	1	1
Georgia	21,740	20,850	2,429	2,430	16,392	15,501	2,915	2,915	5	5
Florida	36,047	35,661	42	42	30,699	31,214	4,110	4,110	1,196	295
South Atlantic	**136,931**	**135,684**	**10,420**	**10,458**	**100,539**	**100,153**	**24,433**	**24,433**	**1,539**	**641**
Kentucky	16,601	16,608	746	746	15,841	15,848	–	–	14	13
Tennessee	18,209	18,279	3,714	3,714	12,054	12,124	2,441	2,441	–	–
Alabama	19,910	19,989	2,857	2,857	11,821	11,900	5,233	5,233	–	–
Mississippi	7,154	7,154	–	–	5,702	5,702	1,373	1,373	79	79
East South Central	**61,875**	**62,030**	**7,317**	**7,317**	**45,419**	**45,574**	**9,046**	**9,046**	**93**	**92**
Arkansas	9,764	9,202	1,118	1,086	6,766	6,235	1,845	1,845	35	35
Louisiana	18,216	18,228	–	–	15,869	15,858	2,236	2,236	111	134
Oklahoma	13,589	13,582	968	968	12,485	12,485	–	–	136	129
Texas	62,866	60,029	607	599	60,729	59,253	1,354	–	175	176
West South Central	**104,434**	**101,041**	**2,693**	**2,654**	**95,849**	**93,831**	**5,435**	**4,081**	**456**	**475**
Montana	4,936	4,867	2,277	2,207	2,659	2,660	–	–	–	–
Idaho	2,089	2,048	2,031	1,991	50	50	–	–	7	7
Wyoming	5,853	5,854	242	242	5,590	5,590	–	–	18	18
Colorado	7,263	7,231	1,039	1,010	5,808	5,808	336	336	80	77
New Mexico	5,598	5,512	55	25	5,526	5,468	–	–	18	19
Arizona	15,923	15,732	2,546	2,498	9,163	9,155	4,210	4,076	4	3
Utah	5,221	5,087	226	223	4,921	4,777	–	–	74	86
Nevada	4,993	4,831	892	729	4,039	4,039	–	–	62	62
Mountain	**51,875**	**51,161**	**9,306**	**8,924**	**37,756**	**37,547**	**4,546**	**4,412**	**263**	**273**
Washington	23,276	24,127	19,859	19,849	2,213	2,213	1,200	2,060	4	4
Oregon	10,366	10,366	7,873	7,873	1,272	1,272	1,216	1,216	6	6
California	45,944	45,405	12,423	11,862	27,499	27,504	5,974	5,974	47	47
Pacific	**79,586**	**79,897**	**40,154**	**39,584**	**30,984**	**30,989**	**8,390**	**9,250**	**56**	**56**
Alaska	1,714	1,672	209	209	1,239	1,200	–	–	267	263
Hawaii	1,504	1,483	3	3	1,365	1,359	–	–	136	121
Alaska & Hawaii	**3,219**	**3,155**	**212**	**212**	**2,604**	**2,559**	**–**	**–**	**403**	**384**

Note: Total may not equal sum of components due to independent rounding.

†*Total includes wind turbine capacity (1987—26.3 kW in thousands; 1988—4.0 kW in thousands) and solar energy capacity (1987—16.5 kW in thousands; 1988—2.4 kW in thousands).*

Sources: U.S. Department of Energy. Energy Information Administration. Annual Electric Generator Report *(EIA-860), and* Annual Electric Utility Report *(EIA-861).*

TABLE 4

INSTALLED GENERATING CAPACITY
INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND TYPE OF PRIME MOVER DRIVING THE GENERATOR
AT DECEMBER 31st, 1987 and 1988—KILOWATTS IN THOUSANDS (NAME PLATE)

	Total Investor-Owned Utilities†		Hydro		Conventional Steam		Nuclear Steam		Internal Combustion	
Division/State	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
Total United States	**557,756**	**552,795**	**29,680**	**29,149**	**432,556**	**431,677**	**92,103**	**89,450**	**3,416**	**2,484**
Maine	2,363	2,349	353	340	1,104	1,104	864	864	41	41
New Hampshire	1,405	1,405	262	262	1,143	1,143	–	–	–	–
Vermont	1,011	1,003	338	330	92	92	563	563	18	18
Massachusetts	9,105	9,098	1,645	1,645	6,447	6,447	863	863	150	143
Rhode Island	272	272	–	–	243	243	–	–	29	29
Connecticut	7,357	7,320	130	130	3,473	3,454	3,425	3,425	330	311
New England	**21,513**	**21,447**	**2,728**	**2,706**	**12,502**	**12,483**	**5,715**	**5,715**	**568**	**542**
New York	26,107	26,120	888	909	21,838	21,838	3,338	3,338	43	35
New Jersey	14,534	14,546	387	387	9,979	9,991	4,160	4,160	8	8
Pennsylvania	35,862	35,941	1,836	1,916	25,533	25,533	8,419	8,418	74	74
Middle Atlantic	**76,502**	**76,607**	**3,111**	**3,212**	**57,350**	**57,362**	**15,917**	**15,916**	**125**	**117**
Ohio	26,686	26,686	48	48	24,350	24,350	2,215	2,215	74	74
Indiana	20,069	20,069	94	94	19,755	19,754	–	–	221	221
Illinois	35,738	34,837	14	14	21,587	21,911	13,734	12,509	403	403
Michigan	22,574	22,519	2,304	2,288	15,790	15,689	4,326	4,387	154	154
Wisconsin	9,994	10,254	404	374	7,983	8,275	1,583	1,583	25	23
East North Central	**115,061**	**114,365**	**2,863**	**2,817**	**89,465**	**89,980**	**21,858**	**20,694**	**876**	**874**
Minnesota	8,451	8,347	140	134	6,551	6,435	1,755	1,755	4	4
Iowa	7,322	7,381	127	127	6,578	6,637	597	597	21	21
Missouri	12,042	11,952	596	596	10,205	10,108	1,236	1,236	5	12
North Dakota	607	607	–	–	606	606	–	–	*	*
South Dakota	811	811	*	*	758	758	–	–	52	52
Nebraska	–	–	–	–	–	–	–	–	–	–
Kansas	8,240	8,047	2	2	6,997	6,803	1,236	1,236	6	6
West North Central	**37,472**	**37,144**	**865**	**859**	**31,695**	**31,347**	**4,824**	**4,824**	**88**	**95**
Delaware	1,741	1,741	–	–	1,741	1,741	–	–	–	–
Maryland	10,331	10,368	494	531	7,754	7,754	1,829	1,829	255	255
District of Columbia	868	868	–	–	868	868	–	–	–	–
Virginia	13,398	13,398	2,746	2,746	6,982	6,982	3,655	3,655	16	16
West Virginia	15,163	15,152	175	175	14,988	14,977	–	–	–	–
North Carolina	20,126	20,126	1,481	1,481	13,520	13,520	5,125	5,125	–	–
South Carolina	13,108	13,168	1,846	1,845	4,463	4,523	6,799	6,799	–	–
Georgia	20,180	19,289	886	886	16,375	15,484	2,915	2,915	5	5
Florida	27,457	27,800	*	*	22,413	23,657	4,110	4,110	934	33
South Atlantic	**122,373**	**121,911**	**7,629**	**7,666**	**89,103**	**89,505**	**24,433**	**24,433**	**1,208**	**307**
Kentucky	7,812	7,812	110	110	7,701	7,701	–	–	–	–
Tennessee	172	172	172	172	–	–	–	–	–	–
Alabama	10,813	10,813	1,583	1,583	7,454	7,454	1,777	1,777	–	–
Mississippi	6,382	6,382	–	–	4,930	4,930	1,373	1,373	79	79
East South Central	**25,178**	**25,178**	**1,865**	**1,865**	**20,086**	**20,086**	**3,149**	**3,149**	**79**	**79**
Arkansas	8,367	7,836	65	65	6,451	5,920	1,845	1,845	6	6
Louisiana	15,297	15,300	–	–	13,025	13,012	2,236	2,236	36	52
Oklahoma	10,331	10,331	–	–	10,306	10,306	–	–	25	25
Texas	51,521	49,341	91	90	50,040	49,213	1,354	–	37	38
West South Central	**85,516**	**82,808**	**156**	**155**	**79,822**	**78,451**	**5,435**	**4,081**	**104**	**121**
Montana	3,640	3,571	981	911	2,659	2,660	–	–	–	–
Idaho	1,384	1,384	1,329	1,329	50	50	–	–	5	5
Wyoming	3,900	3,900	2	3	3,880	3,880	–	–	18	18
Colorado	3,430	3,427	342	342	2,727	2,727	336	336	26	23
New Mexico	5,151	5,094	–	–	5,136	5,078	–	–	15	15
Arizona	8,194	8,052	7	7	3,974	3,966	4,210	4,076	4	3
Utah	2,786	2,786	63	63	2,723	2,723	–	–	–	–
Nevada	4,111	4,111	9	9	4,039	4,039	–	–	62	62
Mountain	**32,596**	**32,325**	**2,733**	**2,664**	**25,188**	**25,123**	**4,546**	**4,412**	**129**	**126**
Washington	3,198	3,198	982	982	2,213	2,213	–	–	3	3
Oregon	3,967	3,968	1,485	1,486	1,260	1,260	1,216	1,216	6	6
California	32,761	32,248	5,245	4,717	22,473	22,473	5,011	5,011	32	32
Pacific	**39,925**	**39,413**	**7,712**	**7,185**	**25,946**	**25,946**	**6,227**	**6,227**	**40**	**40**
Alaska	114	114	16	16	35	35	–	–	63	62
Hawaii	1,504	1,483	3	3	1,365	1,359	–	–	136	121
Alaska & Hawaii	**1,619**	**1,597**	**20**	**20**	**1,400**	**1,394**	**–**	**–**	**199**	**183**

Note: Total may not equal sum of components due to independent rounding.

†Total includes wind turbine capacity (1987—22.1 kW in thousands; 1988—0.3 kW in thousands) and solar energy capacity (1987—12.5 kW in thousands; 1988—0.1 kW in thousands).

**Less than five hundred kilowatts.*

Sources: U.S. Department of Energy, Energy Information Administration. Annual Electric Generator Report *(EIA-860), and* Annual Electric Utility Report *(EIA-861).*

TABLE 5

CHANGES IN INSTALLED GENERATING CAPACITY
TOTAL ELECTRIC UTILITY INDUSTRY*

BY TYPE OF PRIME MOVER DRIVING THE GENERATOR
1969-1988—KILOWATTS IN THOUSANDS (NAME PLATE)

At December 31st	New Additions	Retirements	Adjustments** Plus	Adjustments** Minus	Net Additions
1988‡					
Hydro					976
Steam					4,071
Internal Combustion					787
Total					5,796
1987‡					
Hydro					745
Steam					9,337
Internal Combustion					268
Total					10,372
1986‡					
Hydro					2,150
Steam					15,857
Internal Combustion					943
Total					18,951
1985‡					
Hydro					2,425
Steam					13,675
Internal Combustion					160
Total					16,271
1984‡					
Hydro					1,622
Steam					12,812
Internal Combustion					(155)
Total					14,280
1983‡					
Hydro					840
Steam					7,363
Internal Combustion					(135)
Total					8,077
1982‡					
Hydro					983
Steam					14,783
Internal Combustion					(469)
Total					15,297
1981‡					
Hydro					767
Steam					20,299
Internal Combustion					47
Total					21,113
1980‡					
Hydro					1,027
Steam					14,172
Internal Combustion					53
Total					15,252
1979‡					
Hydro					4,337
Steam					14,834
Internal Combustion					(40)
Total					19,131
1978‡					
Hydro					2,252
Steam					16,452
Internal Combustion					247
Total					18,951
1977‡					
Hydro					1,005
Steam					28,207
Internal Combustion					(13)
Total					29,199
1976‡					
Hydro					1,808
Steam					20,696
Internal Combustion					244
Total					22,748
1975‡					
Hydro					2,389
Steam					29,801
Internal Combustion					56
Total					32,246
1974‡					
Hydro					1,778
Steam					34,412
Internal Combustion					103
Total					36,293
1973‡					
Hydro					5,396
Steam					35,687
Internal Combustion					39
Total					41,122
1972‡					
Hydro					474
Steam					28,819
Internal Combustion					380
Total					29,673
1971‡					
Hydro					856
Steam					27,000
Internal Combustion					134
Total					27,990
1970					
Hydro	2,244	48	109	3	2,302
Steam	25,506	905	882	190	25,293
Internal Combustion	242	40	42	98	146
Total	27,992	993	1,033	291	27,741
1969					
Hydro	1,638	115	64	2	1,585
Steam	19,837	856	1,605	107	20,479
Internal Combustion	219	39	78	31	227
Total	21,694	1,010	1,747	140	22,291

Note: Total may not equal sum of components due to independent rounding.

*Beginning 1983 wind turbine capacity included in total—9.3 kW in thousands; 1984 total—9.6 kW in thousands; 1985 total—7.4 kW in thousands; 1986 total—7.5 kW in thousands; 1987 total—26.3 kW in thousands; 1988 total—4.0 kW in thousands.

Beginning 1984 solar energy capacity included in total—1.0 kW in thousands; 1985 total—13.5 kW in thousands; 1986 total—14.5 kW in thousands; 1987 total—16.5 kW in thousands; 1988 total—2.4 kW in thousands.

**Adjustments are result of reclassification in ownership between industrial and electric utility plants and rerating of turbines within the Total Electric Utility Industry.

‡Complete data not available at time of printing.

( ) Denotes negative figure.

Sources: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report (EIA-759), Annual Electric Generator Report (EIA-860), and Annual Electric Utility Report (EIA-861).

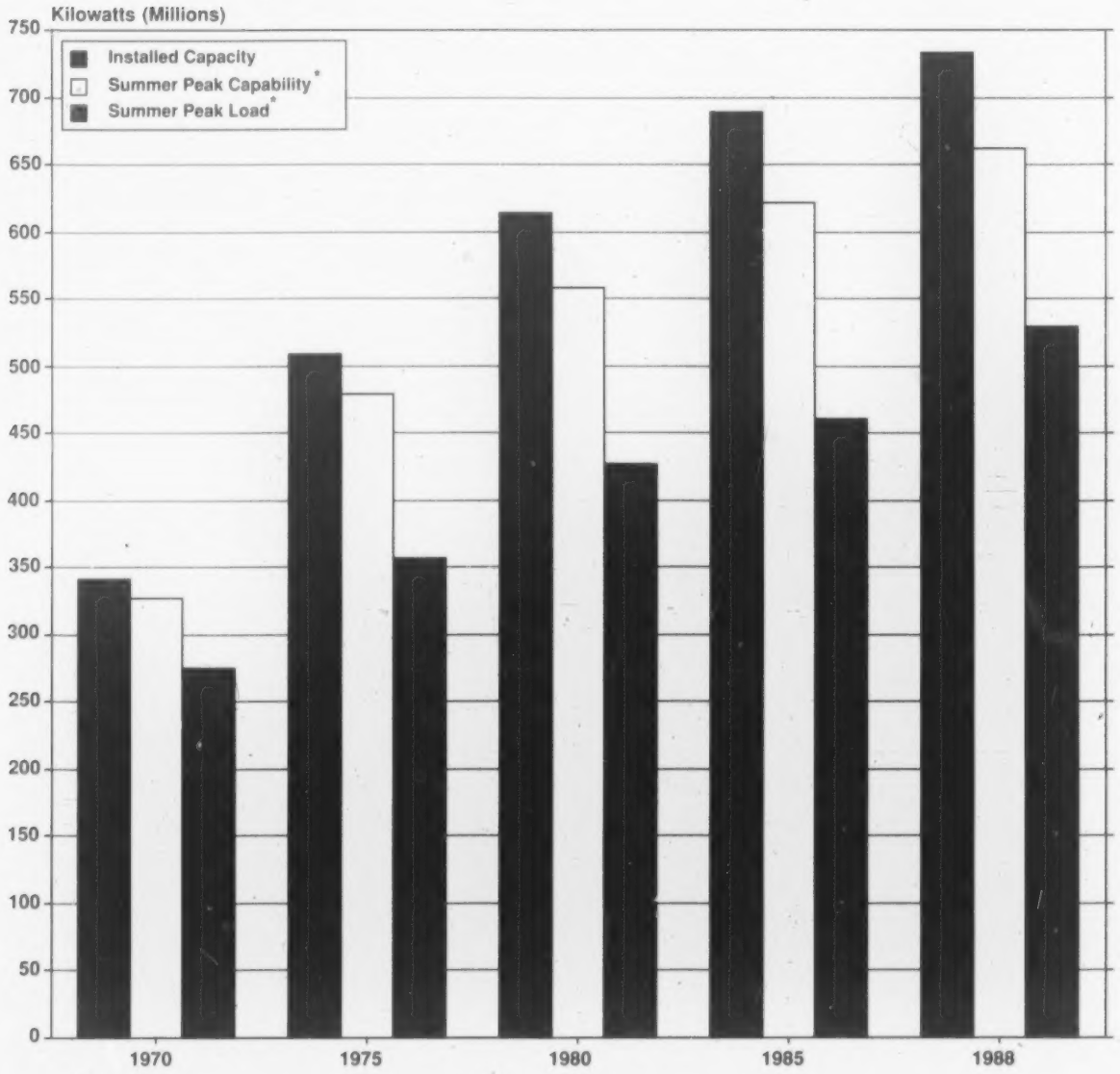
ELECTRIC POWER SUPPLY

SECTION II

CHART II-A

CAPACITY, CAPABILITY & PEAK LOAD

TOTAL ELECTRIC UTILITY INDUSTRY



* *Excludes Alaska and Hawaii.*

Based on Table 1, page 7 and Table 7, page 14.

Sources: U.S. Department of Energy. Energy Information Administration. Monthly Power Plant Report *(EIA-759),* Annual Electric Generator Report *(EIA-860), and* Annual Electric Utility Report *(EIA-861);*
Edison Electric Institute, Electric Power Annual Report.

TABLE 7

CAPABILITY* – PEAK LOAD – KILOWATTHOUR REQUIREMENTS TOTAL ELECTRIC UTILITY INDUSTRY

(EXCLUDING ALASKA AND HAWAII)

Year	Capability at Time of Summer Peak Load (MW)	Non-Coincident Summer Peak Load (MW)	Capability at Time of Winter Peak Load (MW)†	Non-Coincident Winter Peak Load (MW)†	Capacity Margin Based on Non-Coincident Peak Load (%)†‡	Annual Kilowatthour Requirements (in Millions)	Annual Load Factor Based on Peak Load (%)
1988	**661,580**	**529,460**	**N/A**	**466,533**	**20.0**	**2,768,858**	**59.5**
1987	648,118	496,185	662,977	448,277	23.4	2,643,532	60.8
1986	633,291	476,320	646,721	422,857	24.8	2,532,104	60.7
1985	621,597	460,503	636,475	423,660	25.9	2,499,226	62.0
1984	604,240	451,150	622,125	436,374	25.3	2,445,603	59.7
1983	596,449	447,526	612,453	410,779	25.0	2,341,633	59.5
1982	586,142	415,618	598,066	373,985	29.1	2,258,744	62.0
1981	572,219	429,349	586,569	397,800	25.0	2,311,026	61.0
1980	558,237	427,058	572,195	384,567	23.5	2,292,718	61.0
1979	544,506	398,424	554,525	368,876	26.8	2,246,927	64.4
1978	545,700	408,050	561,550	383,100	25.2	2,218,700	62.1
1977	516,000	396,350	537,600	360,200	23.2	2,132,300	61.4
1976	498,750	370,900	511,000	349,850	25.6	2,039,500	62.6
1975	479,300	356,800	492,450	331,100	25.6	1,919,500	61.4
1974	444,400	349,250	467,400	302,500	21.4	1,871,700	61.2
1973	415,500	343,900	433,150	295,150	17.2	1,868,800	62.0
1972	381,700	319,150	394,050	290,950	16.4	1,752,200	62.5
1971	353,250	292,100	366,700	261,650	17.3	1,617,100	63.2
1970	326,900	274,650	339,050	248,550	16.0	1,536,400	63.9
1969	300,300	257,650	311,450	236,600	14.2	1,446,000	64.1
1968	278,950	238,000	288,750	226,700	14.7	1,327,200	63.5

**Capability represents the maximum kilowatt output with all power sources available and with hydraulic equipment under actual water conditions. It must, therefore, provide the necessary allowance for maintenance, emergency outages, and system operating requirements. This rating is more indicative of the actual generating ability of existing power stations than the familiar name-plate rating as used in other tables of this publication.*

†Beginning in 1973 capability and peak load data shown under Winter represent turn-of-year data for the winter season that follows the summer peak load data for that calendar year. Previously, data in this series was always for the month of December.

‡Calculated from the maximum non-coincident peak load, summer or winter, and the capability at the time of this peak load. Percent Capacity Margin is the difference between capability and peak load divided by capability multiplied by 100.

N/A Not Available.

Sources: North American Electric Reliability Council and Edison Electric Institute. All data series shown have a discontinuity between 1978 and 1979 because of the switch to NERC data. For calculation of percent changes between 1978 and 1979, see old series values for 1979 in Table 6 of 1979 edition.

TABLE 8

ELECTRICITY MADE AVAILABLE IN THE UNITED STATES

KILOWATTHOURS IN MILLIONS

Year	Generation					Net Imports of Electric Energy	Total Available in U.S.	Estimated Population† (Thousands) (July 1)	kWh Per Person
	Investor-Owned Utilities	Government and Cooperatives	Total Electric Utility Industry	Other Sources*	Total United States				
1988p	**2,143,002**	**558,623**	**2,701,624**	**N/A**	**2,701,624****	**31,770**	**2,733,394****	**245,807**	**11,120****
1987r	2,022,260	549,867	2,572,127	146,609	2,718,735	46,338	2,765,074	243,419	11,359
1986	1,928,199	559,111	2,487,310	112,008	2,599,318	35,897	2,635,215	241,078	10,931
1985	1,918,032	551,809	2,469,841	98,478	2,568,319	40,936	2,609,255	238,741	10,929
1984	1,848,916	567,388	2,416,304	71,520e	2,487,824	39,661	2,527,485	236,477	10,688
1983	1,764,080	546,205	2,310,285	57,678e	2,367,963	35,330	2,403,293	234,284	10,258
1982	1,711,576	529,635	2,241,211	61,076e	2,302,287	30,744	2,333,031	231,996	10,056
1981	1,785,500	509,312	2,294,812	64,446e	2,359,258	33,584	2,392,842	229,637	10,420
1980	1,782,933	503,481	2,286,414	67,945e	2,354,359	20,925	2,375,284	227,255	10,452
1979	1,756,170	491,189	2,247,359	71,375	2,318,734	20,334	2,339,068	224,567	10,416
1978	1,721,163	485,150	2,206,313	78,967	2,285,280	19,328	2,304,608	222,095	10,377
1977	1,684,084	440,082	2,124,166	87,575	2,211,741	17,415	2,229,156	219,760	10,144
1976	1,582,029	455,645	2,037,674	87,084	2,124,758	8,611	2,133,369	217,563	9,806
1975	1,486,844	430,775	1,917,619	85,362	2,002,981	6,185	2,009,166	215,465	9,325
1974	1,442,114	424,322	1,866,436	101,572	1,968,008	12,694	1,980,702	213,342	9,284
1973	1,448,860	407,356	1,856,216	102,529	1,958,745	14,278	1,973,023	211,357	9,335
1972	1,358,929	390,708	1,749,637	104,508	1,854,145	7,744	1,861,889	209,284	8,896
1971	1,248,596	363,993	1,612,589	103,239	1,715,828	3,530	1,719,358	206,827	8,313
1970	1,183,190	348,419	1,531,609	108,162	1,639,771	1,960	1,641,731	203,984	8,048
1969	1,102,162	340,020	1,442,182	110,575	1,552,757	1,072	1,553,829	201,385	7,716
1968	1,019,313	310,130	1,329,443	106,586	1,436,029	(631)	1,435,398	199,399	7,199

Note: Total may not equal sum of components due to independent rounding.

** Includes non-electric utility industry facilities.*

*** Excludes Other Sources.*

† U.S. Department of Commerce. Bureau of Census estimates; excludes Armed Forces overseas.

N/A Not Available.

e Estimated. p Preliminary. r Revised. ( ) Denotes negative figure.

Sources: U.S. Department of Energy. Energy Information Administration. Monthly Power Plant Report *(EIA-759), Economic Regulatory Administration.* Electricity Transactions Across International Borders, *and Edison Electric Institute.*

TABLE 9

TOTAL UNITED STATES KILOWATTHOUR SOURCE AND DISPOSITION

1968-1988—KILOWATTHOURS IN MILLIONS

	1988p	1987r	1986	1985	1984	1983	1982
SOURCE							
Generation							
Total Electric Utility Industry	2,701,624	2,572,127	2,487,310	2,469,841	2,416,304	2,310,285	2,241,211
Industrials*	N/A	93,981	71,289	70,178	52,125e	42,029e	49,072e
Industrials*—Received by Electric Utility Industry	71,512	52,628	40,719	28,300	19,395	15,649	12,004
Total Generation	**2,773,136**	**2,718,736**	**2,599,318**	**2,568,319**	**2,487,824**	**2,367,963**	**2,302,287**
Imports from Canada & Mexico	38,837	52,219	40,713	45,901	42,219	38,668	34,284
Total Kilowatthours	**2,811,973**	**2,770,955**	**2,640,031**	**2,614,220**	**2,530,043**	**2,406,631**	**2,336,571**
DISPOSITION							
Total Sales to Ultimate Customers	2,549,909	2,435,483	2,354,744	2,305,882	2,280,585	2,159,787	2,099,741
Exports to Canada & Mexico	7,067	5,881	4,816	4,965	2,558	3,337	3,540
Energy Used by Producer	1,353	2,112	1,247	1,833	2,849	2,633	2,539
Company Use & Free Service	7,351	8,401	8,536	9,336	10,958	10,650	12,051
Lost and Unaccounted For	246,293	225,097	199,399	222,026	180,968	188,195	169,628
Industrials*	N/A	93,981	71,289	70,178	52,125e	42,029e	49,072e
Total Kilowatthours	**2,811,973**	**2,770,955**	**2,640,031**	**2,614,220**	**2,530,043**	**2,406,631**	**2,336,571**

	1981	1980	1979	1978	1977	1976	1975
SOURCE							
Generation							
Total Electric Utility Industry	2,294,812	2,286,414	2,247,359	2,206,313	2,124,166	2,037,674	1,917,619
Industrials*	56,045e	60,369e	65,341	72,297	83,543	82,406	79,340
Industrials*—Received by Electric Utility Industry	8,401	7,576	6,034	6,670	4,032	4,678	6,022
Total Generation	**2,359,258**	**2,354,359**	**2,318,734**	**2,285,280**	**2,211,741**	**2,124,758**	**2,002,981**
Imports from Canada & Mexico	35,416	25,021	22,516	21,514	20,159	10,989	11,268
Total Kilowatthours	**2,394,674**	**2,379,380**	**2,341,250**	**2,306,794**	**2,231,900**	**2,135,747**	**2,014,249**
DISPOSITION							
Total Sales to Ultimate Customers	2,150,674	2,126,094	2,084,400	2,017,818	1,950,791	1,849,625	1,733,024
Exports to Canada & Mexico	1,832	4,096	2,182	2,186	2,744	2,378	5,083
Energy Used by Producer	1,462	2,540	3,382	2,372	2,462	2,559	3,068
Company Use & Free Service	10,068	9,053	11,086	7,975	7,037	5,717	4,709
Lost and Unaccounted For	174,593	177,228	174,859	204,146	185,323	193,062	189,025
Industrials*	56,045e	60,369e	65,341	72,297	83,543	82,406	79,340
Total Kilowatthours	**2,394,674**	**2,379,380**	**2,341,250**	**2,306,794**	**2,231,900**	**2,135,747**	**2,014,249**

	1974	1973	1972	1971	1970	1969	1968
SOURCE							
Generation							
Total Electric Utility Industry	1,866,436	1,856,216	1,749,637	1,612,589	1,531,609	1,442,182	1,329,443
Industrials*	94,955	95,761	98,241	96,495	102,440	105,203	103,026
Industrials*—Received by Electric Utility Industry	6,617	6,768	6,267	6,744	5,722	5,372	3,560
Total Generation	**1,968,008**	**1,958,745**	**1,854,145**	**1,715,828**	**1,639,771**	**1,552,757**	**1,436,029**
Imports from Canada & Mexico	15,420	16,848	10,496	7,043	6,169	4,902	3,654
Total Kilowatthours	**1,983,428**	**1,975,593**	**1,864,641**	**1,722,871**	**1,645,940**	**1,557,659**	**1,439,683**
DISPOSITION							
Total Sales to Ultimate Customers	1,700,769	1,703,203	1,577,714	1,466,441	1,391,359	1,307,178	1,202,321
Exports to Canada & Mexico	2,726	2,570	2,752	3,514	4,209	3,830	4,285
Energy Used by Producer	3,059	3,137	3,081	2,854	2,301	2,515	2,469
Company Use & Free Service	4,850	4,912	4,412	3,894	3,984	3,626	3,399
Lost and Unaccounted For	177,069	166,010	178,441	149,673	141,647	135,307	124,183
Industrials*	94,955	95,761	98,241	96,495	102,440	105,203	103,026
Total Kilowatthours	**1,983,428**	**1,975,593**	**1,864,641**	**1,722,871**	**1,645,940**	**1,557,659**	**1,439,683**

N/A Not Available.

**Includes non-electric utility industry facilities.*

p Preliminary. r Revised. e Estimated.

Sources: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report *(EIA-759), Economic Regulatory Adminstration,* Electricity Transactions Across International Borders, *and Edison Electric Institute.*

TABLE 10

WORLD POWER DATA

FIFTEEN COUNTRIES WITH GREATEST INSTALLED GENERATING CAPACITY

1987

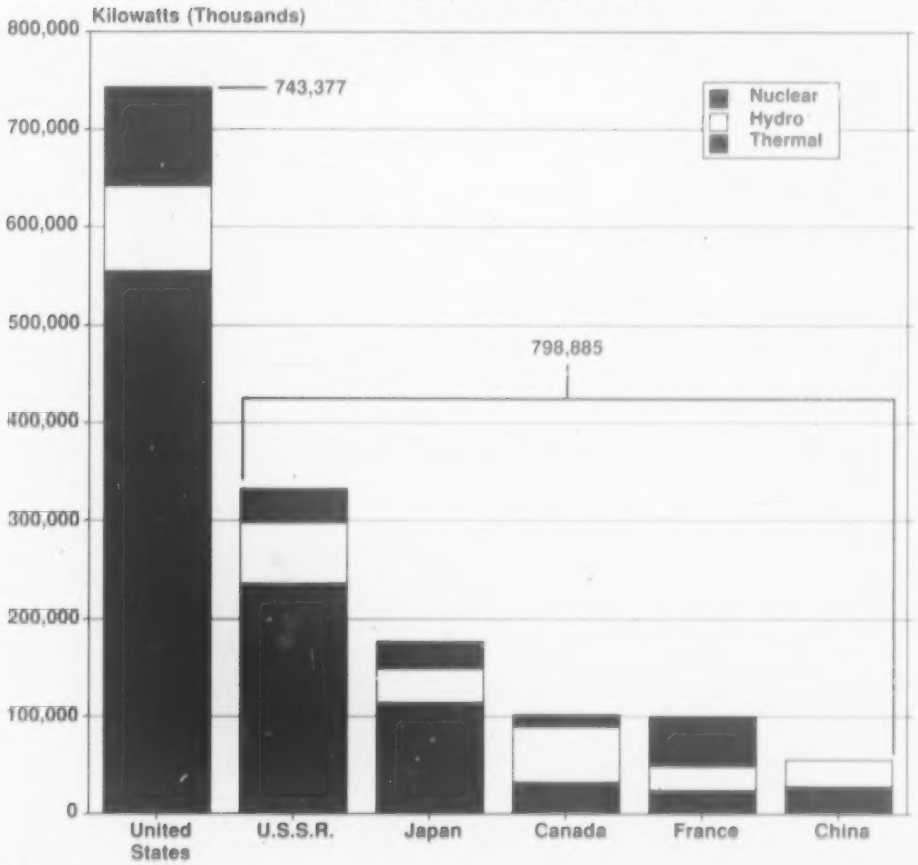
Country	Installed Capacity (Kilowatts in Thousands)				Energy Production† (kWh in Millions)				Population (Thousands)	kWh Per Capita
	Hydro	Nuclear	Thermal	Total	Hydro	Nuclear	Thermal	Total		
United States	87,192	101,604	554,581	743,377	254,695	455,270	1,975,662	2,685,627	243,419‡	11,033
U.S.S.R.	62,695	34,400	235,171	332,266	219,825	186,984	1,258,115	1,664,924	287,015	5,801
Japan	34,650	28,665	113,104	176,419	84,070	189,810	425,090	698,970	123,231	5,672
Canada	56,848	11,900	31,852	100,600	316,322	77,261	102,752	496,335	25,334	19,592
France	24,100	49,400	24,100	97,600	67,900	251,300	37,000	356,200	55,842	6,379
China (mainland)	28,000	—	64,000	92,000	100,007	—	397,260	497,267	1,069,628	465
Germany (West)	6,760	19,650	57,700	84,110	18,932	131,847	265,033	415,812	60,162	6,912
United Kingdom	1,409	7,184	56,179	64,772	4,035	55,238	240,974	300,247	52,914	5,674
India	17,003	1,330	40,100	58,433	57,918	5,400	154,182	217,500	833,422	261
Italy	17,879	1,273	37,251	56,403	39,505	174	158,613	198,292	57,462	3,451
Brazil	40,106	657	6,481	47,244	185,546	971	15,770	202,287	153,992	1,314
Spain	14,453	6,479	15,112	36,044	27,999	41,261	63,908	133,168	39,784	3,347
Australia	7,029	—	26,820	33,849	13,406	—	118,766	132,172	16,090	8,215
Sweden	16,700	9,500	7,255	33,455	72,233	67,576	6,816	146,625	8,371	17,516
Poland	1,976	—	28,134	30,110	4,053	—	141,779	145,832	38,389	3,799

† *Data presented on a gross generation basis.*
‡ *U.S. population July 1, 1987; excludes armed forces abroad. Dept. of Commerce, Bureau of Census.*
Sources: Capacity and production: UN 1987 Energy Statistics Yearbook; *population (except as noted):* The World Almanac and Book of Facts—*1989.*

CHART II-8

WORLD GENERATING CAPACITY

SIX LARGEST COUNTRIES — 1987

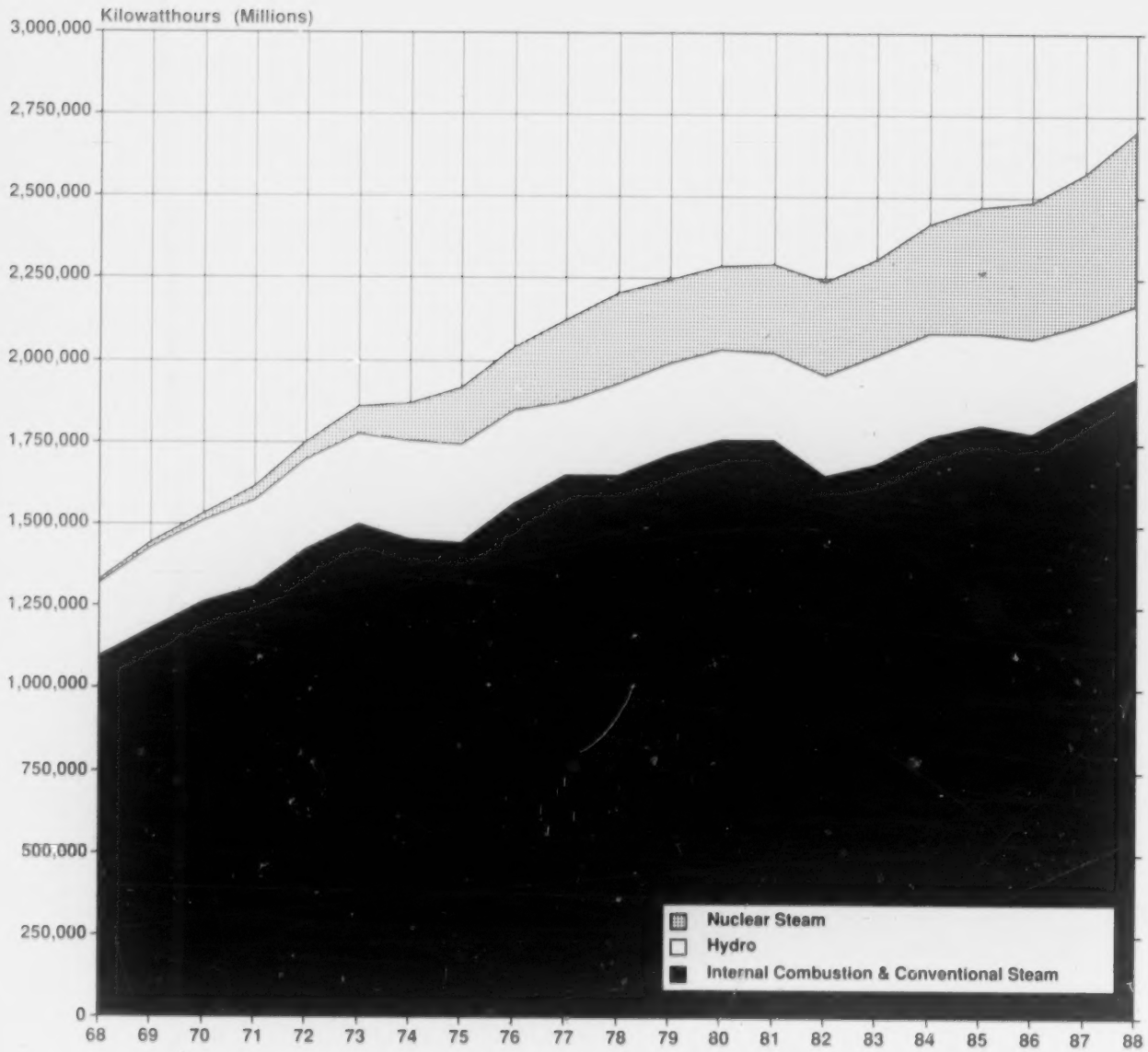


Based on Table 10, as shown above.
Source: UN 1987 Energy Statistics Yearbook.

GENERATION
SECTION III

CHART III-A

GENERATION BY TYPE OF PRIME MOVER
TOTAL ELECTRIC UTILITY INDUSTRY



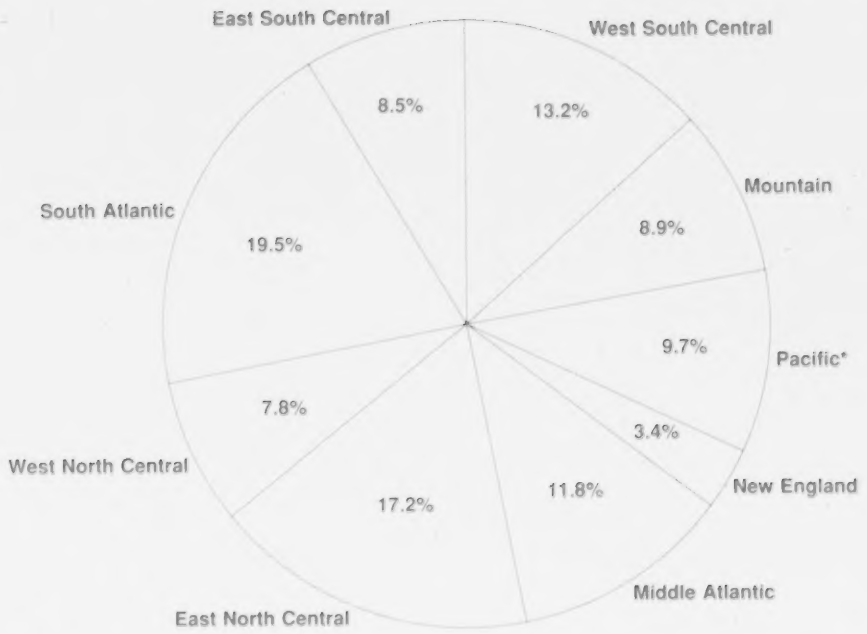
Based on Table 12, page 20
Source: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report, (EIA-759).

CHART III-B

GENERATION BY CENSUS DIVISIONS

TOTAL ELECTRIC UTILITY INDUSTRY

1988



* Includes Alaska and Hawaii.

Based on table 15 page 24.

Source: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report, (EIA-759).

TABLE 12

GENERATION
TOTAL ELECTRIC UTILITY INDUSTRY

BY OWNERSHIP AND TYPE OF PRIME MOVER DRIVING THE GENERATOR
KILOWATTHOURS IN MILLIONS

Year	Total Electric Utility Industry	Investor-Owned Utilities	Cooperatives	Subtotal Government	Municipal Utilities	Federal	Power Districts, State Projects
TOTAL (Generation by All Types of Prime Mover)							
1988p	**2,701,624**	**2,143,002**	**123,079**	**435,544**	**96,538**	**201,125**	**137,881**
1987	2,572,127	2,022,260	122,508	427,359	86,211	205,363	135,786
1986	2,487,310	1,928,199	113,897	445,214	78,869	224,854	141,491
1985	2,469,841	1,918,032	108,321	443,488	73,864	233,063	136,560
1984	2,416,304	1,848,916	101,970	465,418	74,672	253,928	136,818
1983	2,310,285	1,764,080	84,710	461,495	73,069	258,181	130,245
1982	2,241,211	1,711,576	77,098	452,537	76,569	241,004	134,964
1981	2,294,812	1,785,500	73,314	435,998	80,701	232,222	123,075
1980	2,286,414	1,782,933	63,550	439,931	86,579	235,051	118,301
1979	2,247,359	1,756,170	54,404	436,785	87,265	235,570	113,950
1978	2,206,313	1,721,163	48,717	436,433	89,700	235,257	111,476
1977	2,124,166	1,684,084	44,884	395,198	83,382	213,633	98,183
1976	2,037,674	1,582,029	41,223	414,422	78,176	236,024	100,222
1975	1,917,619	1,486,844	35,328	395,447	81,518	221,226	92,703
1974	1,866,436	1,442,114	33,844	390,478	78,677	219,821	91,980
1973	1,856,216	1,448,860	35,127	372,229	80,872	211,715	79,642
1972	1,749,637	1,358,929	31,714	358,994	78,931	206,668	73,395
1971	1,612,589	1,248,596	27,227	336,766	72,609	194,462	69,695
1970	1,531,609	1,183,190	23,459	324,960	71,394	185,753	67,813
1969	1,442,182	1,102,162	17,513	322,507	69,614	183,245	69,648
1968	1,329,443	1,019,313	14,140	295,990	63,804	170,834	61,352
HYDRO (Generation of Generators Driven by Water Wheels and Turbines)							
1988p	**222,938**	**48,725**	**396**	**173,817**	**12,644**	**112,015**	**49,159**
1987	249,695	58,253	398	191,044	12,285	124,680	54,079
1986	290,844	71,356	396	219,091	16,841	141,990	60,260
1985	281,149	66,334	410	214,406	14,496	142,435	57,475
1984	321,150	83,639	279	237,232	15,775	162,268	59,190
1983	332,130	88,663	303	243,164	17,266	160,989	64,910
1982	309,213	81,527	294	227,392	17,061	148,027	62,305
1981	260,684	61,680	231	198,773	13,700	128,690	56,383
1980	276,039	70,500	267	205,272	15,603	131,909	57,760
1979	279,790	74,105	244	205,441	13,270	137,212	54,959
1978	280,432	72,381	275	207,776	14,889	136,804	56,083
1977	220,446	55,343	220	164,883	8,572	111,951	44,360
1976	283,734	68,034	221	215,479	14,444	144,218	56,817
1975	300,065	81,524	251	218,290	16,619	142,943	58,728
1974	300,928	81,204	197	219,527	17,218	137,882	64,427
1973	271,634	77,451	229	193,954	13,439	123,148	57,367
1972	272,626	76,820	220	195,586	15,152	126,328	54,106
1971	266,314	76,521	243	189,550	14,765	121,573	53,212
1970	247,456	70,587	214	176,655	14,453	110,695	51,507
1969	250,193	74,833	215	175,145	15,494	105,687	53,964
1968	222,491	67,201	239	155,051	13,043	94,874	47,134
CONVENTIONAL STEAM (Generation of Generators Driven by Steam Engines and Turbines)							
1988p	**1,950,013**	**1,597,220**	**122,552**	**230,241**	**80,151**	**85,266**	**64,824**
1987	1,865,463	1,531,106	121,845	212,512	73,082	80,890	58,540
1986	1,780,853	1,469,751	113,219	197,883	61,198	83,092	53,593
1985	1,803,323	1,503,349	107,438	192,536	56,543	77,976	58,017
1984	1,765,608	1,487,840	101,184	176,584	54,008	66,989	55,587
1983	1,682,268	1,426,449	84,015	171,804	51,503	69,237	51,063
1982	1,646,883	1,396,336	76,481	174,066	54,507	65,682	53,878
1981	1,758,660	1,492,062	72,619	193,980	62,421	80,715	50,844
1980	1,755,634	1,499,918	62,803	192,913	63,899	83,715	45,299
1979	1,708,256	1,472,652	53,609	181,995	65,100	77,948	38,947
1978	1,644,756	1,415,266	47,887	181,603	66,212	81,535	33,856
1977	1,648,105	1,422,684	44,193	181,228	65,402	83,202	32,624
1976	1,557,647	1,346,179	38,409	173,059	57,547	87,584	27,928
1975	1,439,374	1,249,623	33,647	156,104	57,958	75,549	22,597
1974	1,445,808	1,261,009	32,887	151,912	56,605	75,640	19,667
1973	1,494,901	1,292,886	34,108	167,905	62,422	88,240	17,243
1972	1,416,218	1,229,998	30,713	155,507	58,814	80,324	16,369
1971	1,301,960	1,135,674	26,245	140,041	53,246	72,866	13,929
1970	1,256,294	1,092,564	22,610	141,120	52,380	75,048	13,692
1969	1,172,481	1,016,361	16,760	139,360	49,800	77,544	12,016
1968	1,089,239	942,927	13,332	132,980	46,744	75,927	10,309

See page 21 for footnotes.

TABLE 12 (continued)

GENERATION
TOTAL ELECTRIC UTILITY INDUSTRY

BY OWNERSHIP AND TYPE OF PRIME MOVER DRIVING THE GENERATOR
KILOWATTHOURS IN MILLIONS

Year	Total Electric Utility Industry	Investor-Owned Utilities	Cooperatives	Subtotal Government	Municipal Utilities	Federal	Power Districts, State Projects
NUCLEAR STEAM (Generation of Generators Driven by Nuclear Reactors)							
1988p	**526,901**	**496,295**	–	**30,606**	**2,864**	**3,844**	**23,897**
1987	455,270	432,239	129	22,902	(57)	(207)	23,166
1986	414,038	386,513	157	27,367	(41)	(230)	27,638
1985	383,691	347,769	323	35,599	1,885	12,646	21,069
1984	327,634	276,849	319	50,466	3,760	24,665	22,040
1983	293,677	248,379	201	45,097	2,875	27,951	14,271
1982	282,773	233,213	137	49,423	3,349	27,294	18,780
1981	272,674	231,190	241	41,243	2,585	22,810	15,847
1980	251,121	211,831	214	39,076	4,426	19,413	15,237
1979	255,155	208,788	201	46,166	5,729	20,402	20,035
1978	276,403	232,742	174	43,487	5,046	16,911	21,530
1977	250,882	205,257	89	45,536	5,865	18,473	21,198
1976	191,107	167,098	2,157	21,852	2,161	4,214	15,477
1975	172,506	154,985	951	16,570	2,470	2,722	11,378
1974	113,727	99,042	313	14,372	198	6,289	7,885
1973	83,334	77,790	199	5,345	–	314	5,031
1972	54,092	50,933	240	2,919	–	–	2,919
1971	38,106	35,357	196	2,553	–	–	2,553
1970	21,797	19,063	120	2,614	–	–	2,614
1969	13,928	10,261	–	3,667	–	–	3,667
1968	12,528	8,611	15	3,902	–	–	3,902
INTERNAL COMBUSTION (Generation of Generators Driven by Internal Combustion Engines)							
1988p	**1,762**	**753**	**130**	**878**	**877**	–	**1**
1987	1,685	649	136	900	899	–	1
1986	1,556	565	124	867	866	–	*
1985	1,662	570	150	942	938	4	*
1984	1,901	579	188	1,133	1,130	3	*
1983	2,207	588	190	1,429	1,425	3	1
1982	2,343	501	186	1,656	1,653	2	1
1981	2,795	568	224	2,003	1,995	7	1
1980	3,620	684	266	2,670	2,651	14	5
1979	4,158	625	350	3,183	3,166	8	9
1978	4,722	774	381	3,567	3,553	7	7
1977	4,733	800	382	3,551	3,543	7	1
1976	5,186	718	436	4,032	4,024	8	–
1975	5,674	712	479	4,483	4,471	12	–
1974	5,973	859	447	4,667	4,656	10	1
1973	6,347	731	591	5,025	5,011	13	1
1972	6,701	1,178	541	4,982	4,965	16	1
1971	6,209	1,044	543	4,622	4,598	23	1
1970	6,062	976	515	4,571	4,561	10	–
1969	5,580	707	538	4,335	4,320	14	1
1968	5,185	574	554	4,057	4,017	33	7
WIND† (Generation of Generators Driven by Wind Turbines)							
1988p	1	1	–	(*)	–	(*)	–
1987	4	4	–	(*)	–	(*)	–
1986	4	3	–	1	–	1	–
1985	6	3	–	3	–	3	–
1984	7	4	–	3	–	3	–
1983	3	2	–	1	–	1	–
SOLAR‡ (Generation of Generators Driven by Photovoltaic and Solar Thermal Energy)							
1988p	**9**	**8**	–	**1**	**1**	–	–
1987	11	8	–	2	2	–	–
1986	14	10	–	4	4	–	–
1985	11	9	–	2	2	–	–
1984	5	5	–	*	*	–	–

Note: Total may not equal sum of components due to independent rounding.
† Prior to 1983 generation by wind not available.
‡ Prior to 1984 generation by solar not available.
p Preliminary.
( ) Denotes negative figure.
** Less than five hundred thousand kilowatthours.*
Source: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report *(EIA-759).*

TABLE 13

GENERATION PER KILOWATT OF INSTALLED NAME PLATE CAPACITY TOTAL ELECTRIC UTILITY INDUSTRY

BY OWNERSHIP AND TYPE OF PRIME MOVER DRIVING THE GENERATOR

KILOWATTHOURS

Year	Total Electric Utility Industry	Investor-Owned	Cooperatives	Government-Owned	Total Electric Utility Industry	Investor-Owned	Cooperatives	Government-Owned
	TOTAL				HYDRO			
1988p	**3,747**	**3,859**	**4,667**	**3,126**	**2,580**	**1,656**	**2,809**	**3,058**
1987	3,608	3,687	4,641	3,097	2,919	2,005	3,476	3,389
1986	3,562	3,589	4,466	3,288	3,459	2,525	3,600	3,932
1985	3,629	3,670	4,393	3,327	3,437	2,471	4,432	3,908
1984	3,632	3,624	4,345	3,535	4,025	3,273	3,444	4,381
1983	3,532	3,512	3,880	3,550	4,228	3,578	3,741	4,529
1982	3,489	3,458	3,868	3,547	3,983	3,334	3,973	4,281
1981	3,676	3,690	4,335	3,533	3,396	2,541	3,448	3,792
1980	3,773	3,789	4,344	3,641	3,639	2,929	3,985	3,968
1979	3,816	3,827	4,272	3,725	3,823	3,103	3,642	4,173
1978	3,872	3,859	4,326	3,877	4,013	3,080	4,104	4,486
1977	3,892	3,945	4,308	3,646	3,230	2,391	3,284	3,660
1976	3,920	3,884	4,320	4,024	4,244	2,942	3,299	4,935
1975	3,895	3,836	4,254	4,102	4,634	3,556	4,149	5,226
1974	4,075	3,991	4,585	4,371	4,802	3,649	3,582	5,439
1973	4,427	4,385	5,021	4,545	4,597	3,788	4,164	5,027
1972	4,557	4,510	5,210	4,693	4,855	4,022	4,074	5,287
1971	4,541	4,532	5,122	4,534	4,800	4,035	4,418	5,198
1970	4,681	4,707	4,949	4,570	4,591	3,785	3,821	5,018
1969	4,772	4,783	4,518	4,749	4,815	4,069	3,805	5,226
1968	4,745	4,804	4,382	4,571	4,482	3,685	4,193	4,946
	STEAM				INTERNAL COMBUSTION			
1988p	**3,945**	**4,004**	**4,726**	**4,847**	**267**	**255**	**438**	**261**
1987	3,736	3,798	4,695	3,008	277	265	456	270
1986	3,606	3,661	4,520	2,946	284	290	398	270
1985	3,683	3,744	4,446	3,032	338	410	460	294
1984	3,605	3,652	4,399	3,055	386	414	593	354
1983	3,463	3,519	3,928	2,966	436	377	608	448
1982	3,449	3,477	3,924	3,139	437	285	554	506
1981	3,748	3,764	4,417	3,478	501	303	638	598
1980	3,825	3,849	4,433	3,528	655	372	764	800
1979	3,849	3,881	4,381	3,527	753	347	903	956
1978	3,885	3,916	4,446	3,578	872	457	992	1,069
1977	4,022	4,048	4,423	3,777	893	487	1,129	1,070
1976	3,906	3,956	4,437	3,478	1,000	454	1,313	1,233
1975	3,815	3,868	4,375	3,358	1,127	479	1,423	1,396
1974	3,995	4,029	4,756	3,629	1,206	592	1,294	1,478
1973	4,441	4,444	5,200	4,298	1,300	478	1,723	1,668
1972	4,551	4,563	5,440	4,318	1,434	778	1,577	1,769
1971	4,540	4,589	5,377	4,063	1,406	769	1,578	1,702
1970	4,751	4,803	5,234	4,321	1,417	751	1,510	1,733
1969	4,820	4,869	4,819	4,493	1,364	593	1,575	1,695
1968	4,862	4,934	4,734	4,425	1,330	535	1,583	1,639

p Preliminary.

Sources: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report (EIA-759), Annual Electric Generator Report (EIA-860), and Annual Electric Utility Report (EIA-861), *as shown in Tables 2 and 12.*

TABLE 14

GENERATION IN PERCENT OF TOTAL TOTAL ELECTRIC UTILITY INDUSTRY

BY OWNERSHIP AND TYPE OF PRIME MOVER DRIVING THE GENERATOR

Year	Investor-Owned	Cooperatives	Government-Owned	Total	Investor-Owned	Cooperatives	Government-Owned	Total	Investor-Owned	Cooperatives	Government-Owned
	TOTAL			HYDRO				CONVENTIONAL STEAM			
1988p	**79.3%**	**4.6%**	**16.1%**	**8.3%**	**1.8%**	***%**	**6.4%**	**72.2%**	**59.1%**	**4.5%**	**8.5%**
1987	78.6	4.8	16.6	9.7	2.3	*	7.4	72.5	59.5	4.7	8.3
1986	77.5	4.6	17.9	11.7	2.9	*	8.8	71.6	59.1	4.5	8.0
1985	77.7	4.4	17.9	11.4	2.7	*	8.7	73.0	60.9	4.3	7.8
1984	76.5	4.2	19.3	13.3	3.5	*	9.8	73.1	61.6	4.2	7.3
1983	76.4	3.6	20.0	14.4	3.9	*	10.5	72.8	61.7	3.6	7.5
1982	76.4	3.4	20.2	13.8	3.7	*	10.1	73.5	62.3	3.4	7.8
1981	77.8	3.2	19.0	11.4	2.7	*	8.7	76.6	65.0	3.2	8.4
1980	78.0	2.8	19.2	12.1	3.1	*	9.0	76.8	65.6	2.8	8.4
1979	78.1	2.4	19.5	12.4	3.3	*	9.1	76.0	65.5	2.4	8.1
1978	78.0	2.2	19.8	12.7	3.3	*	9.4	74.6	64.2	2.2	8.2
1977	79.3	2.1	18.6	10.4	2.6	*	7.8	77.6	67.0	2.1	8.5
1976	77.7	2.0	20.3	13.9	3.3	*	10.6	76.4	66.1	1.9	8.4
1975	77.5	1.9	20.6	15.6	4.2	*	11.4	75.1	65.2	1.8	8.1
1974	77.3	1.8	20.9	16.1	4.4	*	11.7	77.5	67.6	1.8	8.1
1973	78.1	1.9	20.0	14.6	4.2	*	10.4	80.6	69.7	1.9	9.0
1972	77.7	1.8	20.5	15.6	4.4	*	11.2	80.9	70.3	1.8	8.8
1971	77.4	1.7	20.9	16.5	4.7	*	11.8	80.7	70.4	1.7	8.6
1970	77.3	1.5	21.2	16.2	4.7	*	11.5	82.0	71.3	1.5	9.2
1969	76.4	1.2	22.4	17.3	5.2	*	12.1	81.3	70.4	1.2	9.7
1968	76.7	1.0	22.3	16.8	5.1	*	11.7	81.9	70.9	1.0	10.0
				NUCLEAR STEAM				INTERNAL COMBUSTION			
1988p				**19.5%**	**18.4%**	**–%**	**1.1%**	**0.1%**	***%**	***%**	***%**
1987				17.7	16.8	*	0.9	0.1	*	*	*
1986				16.6	15.5	*	1.1	0.1	*	*	*
1985				15.5	14.1	*	1.4	0.1	*	*	*
1984				13.5	11.4	*	2.1	0.1	*	*	0.1
1983				12.7	10.8	*	1.9	0.1	*	*	0.1
1982				12.6	10.4	*	2.2	0.1	*	*	0.1
1981				11.9	10.1	*	1.8	0.1	*	*	0.1
1980				11.0	9.3	*	1.7	0.1	*	*	0.1
1979				11.4	9.3	*	2.1	0.2	*	*	0.2
1978				12.5	10.5	*	2.0	0.2	*	*	0.2
1977				11.8	9.7	*	2.1	0.2	*	*	0.2
1976				9.4	8.2	0.1	1.1	0.3	0.1	*	0.2
1975				9.0	8.0	0.1	0.9	0.3	0.1	*	0.2
1974				6.1	5.3	*	0.8	0.3	*	*	0.3
1973				4.5	4.2	*	0.3	0.3	*	*	0.3
1972				3.1	2.9	*	0.2	0.4	0.1	*	0.3
1971				2.4	2.2	*	0.2	0.4	0.1	*	0.3
1970				1.4	1.2	*	0.2	0.4	0.1	*	0.3
1969				1.0	0.7	–	0.3	0.4	0.1	*	0.3
1968				1.0	0.7	*	0.3	0.3	*	*	0.3

Note: Total may not equal sum of components due to independent rounding.
p Preliminary.
** Less than one tenth of one percent.*
Source: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report *(EIA-759), as shown in Table 12.*

TABLE 15

GENERATION
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND TYPE OF PRIME MOVER DRIVING THE GENERATOR
1987 and 1988p—KILOWATTHOURS IN MILLIONS

	Total Electric Utility Industry†		Hydro		Conventional Steam		Nuclear Steam		Internal Combustion	
Division/State	1988p	1987	1988p	1987	1988p	1987	1988p	1987	1988p	1987
Total United States	**2,701,624**	**2,572,127**	**222,938**	**249,695**	**1,950,013**	**1,865,463**	**526,901**	**455,270**	**1,762**	**1,685**
Maine	9,530	8,346	1,569	1,703	2,935	2,596	5,017	4,043	9	5
New Hampshire	6,997	6,045	968	896	6,030	5,149	–	–	–	–
Vermont	5,049	4,634	809	925	123	171	4,114	3,536	4	2
Massachusetts	34,664	34,735	150	247	33,234	33,218	1,117	1,136	163	134
Rhode Island	764	837	–	–	742	823	–	–	22	14
Connecticut	36,379	33,173	324	337	13,797	12,292	22,251	20,540	6	3
New England	**93,383**	**87,769**	**3,819**	**4,109**	**56,860**	**54,249**	**32,499**	**29,256**	**205**	**156**
New York	124,714	117,630	23,901	27,546	76,561	67,110	24,175	22,926	76	48
New Jersey	40,361	39,324	(222)	(312)	16,692	16,939	23,890	22,697	1	*
Pennsylvania	152,932	145,363	705	1,131	114,359	109,244	37,862	34,982	6	5
Middle Atlantic	**318,007**	**302,317**	**24,384**	**28,365**	**207,612**	**193,293**	**85,928**	**80,606**	**83**	**53**
Ohio	124,034	119,661	187	225	115,383	111,917	8,455	7,513	10	6
Indiana	83,954	78,575	441	507	83,505	78,064	–	–	7	5
Illinois	123,340	109,887	48	90	54,071	59,546	69,166	50,194	55	57
Michigan	88,871	87,035	483	364	70,485	72,204	17,808	14,389	95	78
Wisconsin	45,003	44,030	1,230	1,319	32,302	31,396	11,464	11,311	6	5
East North Central	**465,201**	**439,189**	**2,389**	**2,505**	**355,746**	**353,127**	**106,893**	**83,407**	**173**	**150**
Minnesota	38,329	34,406	532	720	25,500	22,111	12,288	11,554	9	20
Iowa	26,983	25,549	698	970	23,111	22,048	3,163	2,523	11	8
Missouri	59,740	55,087	1,511	1,447	49,264	47,318	8,935	6,284	30	37
North Dakota	27,351	22,620	1,884	1,982	25,468	20,638	–	–	–	–
South Dakota	7,886	6,265	5,254	5,354	2,631	911	–	–	*	(*)
Nebraska	20,635	20,489	1,350	1,567	12,439	10,319	6,828	8,589	18	14
Kansas	31,385	30,822	12	9	24,470	24,098	6,650	6,471	254	244
West North Central	**212,310**	**195,238**	**11,240**	**12,050**	**162,882**	**147,444**	**37,865**	**35,421**	**322**	**323**
Delaware	8,953	8,511	–	–	8,944	8,503	–	–	8	8
Maryland	40,384	36,251	1,328	1,612	27,268	24,499	11,734	10,070	55	69
District of Columbia	469	233	–	–	469	233	–	–	–	–
Virginia	45,172	42,697	(218)	807	24,344	23,739	21,037	18,145	8	7
West Virginia	81,314	78,372	297	315	81,017	78,057	–	–	–	–
North Carolina	78,406	78,825	2,890	5,098	46,369	45,127	29,146	28,600	(*)	–
South Carolina	65,183	64,410	631	2,160	23,806	22,960	40,746	39,290	*	*
Georgia	82,374	85,806	2,011	3,121	65,213	67,425	15,149	15,259	–	1
Florida	124,057	110,765	209	217	97,502	91,572	26,198	18,773	147	203
South Atlantic	**526,311**	**505,870**	**7,149**	**13,330**	**374,933**	**362,115**	**144,010**	**130,137**	**218**	**288**
Kentucky	76,436	67,454	2,423	2,948	74,013	64,506	–	–	–	*
Tennessee	59,858	58,312	4,591	7,566	51,326	50,854	3,940	(108)	–	–
Alabama	67,518	69,336	5,359	7,449	49,178	50,640	12,981	11,248	–	–
Mississippi	25,093	22,388	–	–	15,510	14,671	9,582	7,717	–	–
East South Central	**228,905**	**217,490**	**12,374**	**17,962**	**190,027**	**180,671**	**26,504**	**18,857**	**–**	*
Arkansas	33,764	36,287	2,785	2,407	22,083	22,510	8,895	11,369	*	*
Louisiana	56,774	51,309	–	–	42,985	38,983	13,785	12,324	3	2
Oklahoma	43,985	42,737	2,045	2,948	41,911	39,760	–	–	29	29
Texas	221,069	212,620	1,234	2,158	216,084	210,427	3,720	–	32	35
West South Central	**355,592**	**342,952**	**6,064**	**7,513**	**323,063**	**311,679**	**26,401**	**23,693**	**64**	**66**
Montana	24,821	20,884	8,237	8,925	16,582	11,959	–	–	2	*
Idaho	6,746	8,105	6,745	8,105	*	*	–	–	*	*
Wyoming	39,147	37,370	789	768	38,359	36,603	–	–	(*)	(*)
Colorado	30,893	28,810	1,744	1,818	28,486	26,817	660	174	3	2
New Mexico	26,369	25,585	100	164	26,269	25,420	–	–	*	*
Arizona	61,562	51,600	7,771	10,119	30,851	28,023	22,940	13,458	*	*
Utah	29,637	26,346	593	856	29,040	25,482	–	–	4	8
Nevada	20,296	17,442	2,091	2,526	18,206	14,917	–	–	(1)	(1)
Mountain	**239,472**	**216,143**	**28,072**	**33,281**	**187,791**	**169,220**	**23,600**	**13,632**	**9**	**10**
Washington	83,593	83,756	68,379	69,698	9,214	8,529	6,000	5,528	*	*
Oregon	41,048	39,739	34,646	35,431	63	(39)	6,339	4,348	–	(*)
California	125,981	130,344	23,474	24,564	71,613	75,359	30,863	30,387	21	20
Pacific	**250,622**	**253,839**	**126,499**	**129,693**	**80,890**	**83,849**	**43,202**	**40,263**	**21**	**20**
Alaska	4,195	4,122	935	872	3,039	3,045	–	–	220	206
Hawaii	7,627	7,197	14	15	7,167	6,770	–	–	446	411
Alaska & Hawaii	**11,822**	**11,319**	**950**	**887**	**10,206**	**9,815**	**–**	**–**	**666**	**618**

Note: Total may not equal sum of components due to independent rounding.
†Total includes generation by wind (1987—3.5 kWh in millions; 1988p—0.9 kWh in millions) and generation by solar (1987—10.5 kWh in millions; 1988p—9.1 kWh in millions).
*p Preliminary. ( ) Denotes negative figure. *Less than five hundred thousand kilowatthours.*
Source: U.S. Department of Energy. Energy Information Administration. Monthly Power Plant Report *(EIA-759).*

TABLE 16

GENERATION
INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND TYPE OF PRIME MOVER DRIVING THE GENERATOR
1987 and 1988p—KILOWATTHOURS IN MILLIONS

Division/State	Total Investor-Owned Utilities†		Hydro		Conventional Steam		Nuclear Steam		Internal Combustion	
	1988p	1987	1988p	1987	1988p	1987	1988p	1987	1988p	1987
Total United States	**2,143,002**	**2,022,260**	**48,725**	**58,253**	**1,597,220**	**1,531,106**	**496,295**	**432,239**	**753**	**649**
Maine	9,528	8,343	1,567	1,700	2,935	2,596	5,017	4,043	9	5
New Hampshire	6,997	6,045	968	896	6,030	5,149	–	–	–	–
Vermont	4,886	4,415	752	865	17	12	4,114	3,536	3	1
Massachusetts	33,202	33,149	128	219	31,827	31,691	1,117	1,136	130	103
Rhode Island	764	837	–	–	742	823	–	–	22	14
Connecticut	36,360	33,157	314	326	13,793	12,289	22,251	20,540	3	2
New England	**91,737**	**85,945**	**3,728**	**4,005**	**55,344**	**52,560**	**32,499**	**29,256**	**167**	**124**
New York	89,972	81,480	3,304	3,690	73,554	63,907	13,107	13,877	8	6
New Jersey	40,167	39,148	(222)	(312)	16,498	16,763	23,890	22,697	1	–
Pennsylvania	152,918	145,363	690	1,131	114,359	109,244	37,862	34,982	6	5
Middle Atlantic	**283,057**	**265,991**	**3,772**	**4,508**	**204,410**	**189,914**	**74,859**	**71,557**	**15**	**11**
Ohio	122,717	109,162	185	220	114,068	101,425	8,455	7,513	9	5
Indiana	78,027	72,895	441	507	77,584	72,388	–	–	2	1
Illinois	120,392	106,844	48	72	51,177	56,578	69,166	50,194	*	1
Michigan	83,912	82,084	247	152	65,848	67,542	17,808	14,389	9	1
Wisconsin	40,644	39,849	1,076	1,174	28,102	27,493	11,464	11,182	2	1
East North Central	**445,692**	**410,835**	**1,998**	**2,124**	**336,780**	**325,426**	**106,893**	**83,278**	**22**	**7**
Minnesota	37,767	33,661	525	705	24,954	21,402	12,288	11,554	*	(*)
Iowa	25,020	23,684	689	953	21,168	20,208	3,163	2,523	(*)	(*)
Missouri	44,502	40,485	583	646	34,983	33,556	8,935	6,284	(*)	(*)
North Dakota	2,850	2,433	–	–	2,850	2,433	–	–	–	–
South Dakota	2,628	910	1	1	2,627	910	–	–	*	(*)
Nebraska	–	–	–	–	–	–	–	–	–	–
Kansas	27,349	26,833	12	9	20,687	20,353	6,650	6,471	*	*
West North Central	**140,115**	**128,006**	**1,810**	**2,313**	**107,269**	**98,862**	**31,037**	**26,832**	**(*)**	**(1)**
Delaware	8,496	8,175	–	–	8,496	8,175	–	–	–	–
Maryland	40,332	36,183	1,328	1,612	27,268	24,499	11,734	10,070	2	2
District of Columbia	469	233	–	–	469	233	–	–	–	–
Virginia	44,855	41,919	(532)	32	24,344	23,738	21,037	18,145	6	4
West Virginia	81,314	78,372	297	315	81,017	78,057	–	–	–	–
North Carolina	77,737	77,844	2,293	4,209	46,298	45,035	29,146	28,600	–	–
South Carolina	53,988	53,302	38	1,035	13,205	12,976	40,746	39,290	–	–
Georgia	81,353	84,126	991	1,443	65,213	67,423	15,149	15,259	–	1
Florida	98,876	89,348	*	1	72,677	70,574	26,198	18,773	*	*
South Atlantic	**487,419**	**469,503**	**4,415**	**8,647**	**338,986**	**330,712**	**144,010**	**130,137**	**8**	**7**
Kentucky	33,247	29,916	383	432	32,864	29,485	–	–	–	–
Tennessee	425	616	425	616	–	–	–	–	–	–
Alabama	49,291	48,889	2,393	3,322	33,821	34,220	13,077	11,347	–	–
Mississippi	22,850	20,130	–	–	13,268	12,414	9,582	7,717	–	–
East South Central	**105,813**	**99,552**	**3,202**	**4,369**	**79,952**	**76,119**	**22,659**	**19,064**	**–**	**–**
Arkansas	31,157	33,995	178	116	22,083	22,510	8,895	11,369	–	–
Louisiana	47,392	43,919	–	–	33,606	31,595	13,785	12,324	*	*
Oklahoma	32,282	31,803	–	–	32,282	31,801	–	–	*	2
Texas	187,163	179,437	52	55	183,391	179,382	3,720	–	(*)	*
West South Central	**297,994**	**289,155**	**230**	**171**	**271,363**	**265,287**	**26,401**	**23,693**	*****	**3**
Montana	20,617	16,409	4,033	4,450	16,582	11,959	–	–	2	*
Idaho	4,663	5,566	4,662	5,566	*	*	–	–	*	*
Wyoming	27,238	25,180	1	2	27,237	25,179	–	–	(*)	(*)
Colorado	13,040	11,856	85	120	12,291	11,560	660	174	5	3
New Mexico	24,678	24,233	–	–	24,678	24,232	–	–	*	*
Arizona	31,987	21,566	36	36	9,010	8,072	22,940	13,458	*	*
Utah	15,281	14,220	97	177	15,183	14,043	–	–	–	–
Nevada	18,223	14,940	18	24	18,206	14,917	–	–	(1)	(1)
Mountain	**155,727**	**133,969**	**8,932**	**10,374**	**123,188**	**109,961**	**23,600**	**13,632**	**6**	**3**
Washington	13,193	12,065	3,979	3,536	9,214	8,529	–	–	*	*
Oregon	12,041	10,600	5,738	6,292	(36)	(39)	6,339	4,348	–	(*)
California	102,453	109,306	10,841	11,826	63,583	67,004	27,999	30,443	22	20
Pacific	**127,687**	**131,971**	**20,559**	**21,654**	**72,761**	**75,494**	**34,337**	**34,791**	**22**	**20**
Alaska	134	135	66	72	–	–	–	–	68	63
Hawaii	7,627	7,197	14	15	7,167	6,770	–	–	446	411
Alaska & Hawaii	**7,761**	**7,332**	**80**	**88**	**7,167**	**6,770**	**–**	**–**	**514**	**474**

Note: Total may not equal sum of components due to independent rounding.
†Total includes generation by wind (1987—3.7 kWh in millions; 1988p—0.9 kWh in millions) and generation by solar (1987—8.2 kWh in millions; 1988p—7.6 kWh in millions).
*p Preliminary. ( ) Denotes negative figure. *Less than five hundred thousand kilowatthours.*
Source: U.S. Department of Energy. Energy Information Administration. Monthly Power Plant Report. *(EIA-759).*

TABLE 17

GENERATION
TOTAL ELECTRIC UTILITY INDUSTRY AND INVESTOR-OWNED ELECTRIC UTILITIES

BY MONTH AND TYPE OF PRIME MOVER DRIVING THE GENERATOR
1985-1988p—KILOWATTHOURS IN MILLIONS

	Total Electric Utility Industry					Investor-Owned Electric Utilities				
Year—Month	Total†	Hydro	Conventional Steam	Nuclear Steam	Internal Combustion	Total†	Hydro	Conventional Steam	Nuclear Steam	Internal Combustion
YEAR—1988p										
January	237,600	22,031	170,753	44,658	156	187,220	4,939	140,001	42,209	70
February	216,702	19,105	155,235	42,246	115	171,002	4,520	126,198	40,233	51
March	213,838	19,514	150,295	43,912	116	170,076	4,769	123,364	41,887	55
April	195,809	19,104	136,538	40,067	100	154,706	4,999	111,932	37,728	47
May	208,180	21,238	146,182	40,650	109	163,371	4,901	119,344	39,074	51
June	232,507	18,833	169,417	44,079	176	184,111	3,528	138,564	41,956	62
July	257,235	16,904	190,300	49,828	202	205,590	3,095	156,447	45,978	69
August	267,408	16,447	201,712	48,985	264	214,769	2,987	166,268	45,418	95
September	220,023	16,270	157,345	46,270	136	174,025	3,100	127,525	43,340	59
October	210,377	15,112	152,560	42,581	123	168,795	3,122	125,411	40,199	63
November	209,394	18,466	151,228	39,578	122	165,745	4,616	124,163	36,906	60
December	232,550	19,913	168,449	44,046	142	183,591	4,150	138,002	41,369	70
Total	2,701,624	222,938	1,950,013	526,901	1,762	2,143,002	48,725	1,597,220	496,295	753
YEAR—1987										
January	222,749	25,412	157,231	39,975	132	172,804	5,880	129,174	37,697	53
February	194,034	21,226	136,096	36,598	114	152,083	5,326	111,793	34,914	49
March	201,849	23,248	141,189	37,290	122	159,397	6,749	116,975	35,623	50
April	189,496	22,025	133,834	33,518	117	148,877	6,052	110,428	32,345	51
May	206,074	24,202	147,420	34,320	130	160,451	5,114	121,837	33,441	57
June	225,589	20,863	167,992	36,560	171	178,067	4,151	138,477	35,383	53
July	247,915	20,195	187,443	40,056	219	196,760	4,089	154,111	38,492	66
August	247,645	18,446	187,637	41,352	208	196,592	3,378	153,824	39,326	63
September	213,008	18,180	155,034	39,666	128	168,363	4,101	126,811	37,399	52
October	203,009	17,955	148,452	36,492	110	158,978	3,905	121,388	33,636	49
November	200,258	16,857	145,850	37,438	112	157,596	4,141	118,703	34,701	51
December	220,500	21,087	157,285	42,006	123	172,292	5,368	127,585	39,285	55
Total	2,572,127	249,695	1,865,463	455,270	1,685	2,022,260	58,253	1,531,106	432,239	649
YEAR—1986										
January	217,470	21,377	159,733	36,219	139	170,455	5,696	131,031	33,664	63
February	192,336	23,222	136,288	32,721	104	149,192	6,249	112,985	29,916	41
March	196,834	28,465	137,487	30,773	107	150,144	7,632	113,693	28,777	40
April	186,074	27,523	127,966	30,477	106	141,097	7,114	105,767	28,176	39
May	197,315	27,205	138,065	31,924	118	151,611	6,539	114,682	30,347	42
June	215,015	26,223	157,305	31,334	151	166,336	6,235	130,792	29,262	46
July	242,672	24,072	182,505	35,894	199	189,342	4,980	150,568	33,742	50
August	225,166	21,189	166,337	37,483	155	176,273	4,548	136,719	34,950	55
September	206,692	21,114	148,849	36,593	135	161,017	4,669	122,316	33,977	54
October	197,754	21,335	140,095	36,214	108	154,504	5,464	114,960	34,034	44
November	196,432	23,153	138,220	34,944	114	153,142	5,779	114,446	32,872	43
December	213,551	25,965	148,002	39,463	120	165,086	6,452	121,791	36,796	48
Total	2,487,310	290,844	1,780,853	414,038	1,556	1,928,199	71,356	1,469,751	386,513	565
YEAR—1985										
January	227,856	27,543	163,973	36,186	153	173,754	6,008	137,349	30,337	59
February	198,242	25,902	141,403	30,812	123	150,552	5,918	118,997	25,587	50
March	194,970	24,640	139,178	31,041	110	150,720	6,342	117,443	26,888	47
April	184,877	24,403	133,907	26,458	107	142,462	6,713	112,093	23,612	43
May	196,790	26,421	141,551	28,697	119	150,762	6,388	117,461	26,872	40
June	205,363	23,839	150,535	30,837	150	158,780	5,089	124,909	28,736	44
July	226,722	21,293	170,058	35,184	187	177,729	4,320	141,397	31,960	52
August	226,050	19,981	171,059	34,812	196	179,285	4,188	142,921	32,121	54
September	202,499	18,767	149,067	34,508	155	161,226	4,363	124,243	32,577	43
October	194,789	20,048	143,409	31,205	126	154,363	5,070	119,464	29,783	45
November	192,427	22,954	139,203	30,166	104	148,991	5,905	114,892	28,151	42
December	219,255	25,359	159,980	33,782	133	169,408	6,029	132,181	31,146	51
Total	2,469,841	281,149	1,803,323	383,691	1,662	1,918,032	66,334	1,503,349	347,769	570

Note: Total may not equal sum of components due to independent rounding.
† Includes generation by wind and solar. See Table 12 for details.
p Preliminary.
Source: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report (EIA-759).

TABLE 18

INDEX OF WEEKLY ELECTRIC OUTPUT TOTAL ELECTRIC UTILITY INDUSTRY

(EXCLUDING ALASKA AND HAWAII)
SEASONALLY ADJUSTED—1967 AVERAGE = 100
1978-1988

Week Number	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
1	224	208	212	199	201	169	176	180	179	199	184
2	234	204	210	202	192	174	179	189	178	192	184
3	232	202	199	207	204	176	205	197	170	189	184
4	216	213	194	219	195	188	193	185	176	186	182
5	228	219	215	209	190	182	190	182	194	201	193
6	221	200	196	213	190	177	183	191	190	198	185
7	235	208	220	206	177	186	192	192	188	196	180
8	233	223	210	200	187	183	182	176	185	194	183
9	228	221	216	201	206	184	193	187	200	196	187
10	221	212	213	206	207	185	196	193	204	191	186
11	222	217	206	202	205	186	194	192	196	194	176
12	237	218	213	207	202	189	192	198	195	189	170
13	228	209	203	204	195	201	195	195	196	193	170
14	224	223	201	204	203	195	195	189	191	194	173
15	225	216	208	204	203	196	201	193	188	193	174
16	225	211	210	205	202	200	193	195	195	191	180
17	227	216	213	215	206	191	192	195	188	188	177
18	222	219	214	211	206	191	187	198	187	186	177
19	225	219	216	213	208	191	187	193	187	196	180
20	229	221	215	216	205	190	189	192	185	188	181
21	227	226	208	208	208	190	192	188	182	181	182
22	219	227	214	212	199	187	187	192	185	181	187
23	238	228	217	222	214	188	191	198	193	191	183
24	236	220	218	212	220	198	187	204	180	183	178
25	252	235	213	203	215	193	182	205	179	184	179
26	228	230	217	206	209	194	179	200	192	177	188
27	224	223	213	201	205	190	179	194	192	173	175
28	265	226	219	214	212	200	190	202	197	182	179
29	233	211	212	198	192	201	182	195	202	184	187
30	235	232	217	196	194	199	190	194	194	189	185
31	252	230	215	194	192	202	187	185	194	193	178
32	249	232	203	197	206	199	189	192	204	198	183
33	253	223	205	211	214	207	186	198	201	173	193
34	235	234	214	202	206	215	190	186	196	184	185
35	222	212	196	200	207	205	184	188	194	185	180
36	218	209	194	215	196	211	196	197	201	192	185
37	222	222	207	218	213	204	177	187	200	188	193
38	234	229	210	203	199	195	196	193	198	181	197
39	228	219	230	207	206	189	182	189	203	186	183
40	222	222	236	205	197	197	184	195	192	191	186
41	225	216	215	208	202	194	192	194	186	190	184
42	228	215	210	212	206	198	184	194	188	192	185
43	231	216	207	209	207	197	186	194	189	193	185
44	231	218	207	206	208	197	185	193	194	191	185
45	229	215	213	209	205	199	186	188	187	190	182
46	225	218	221	208	206	201	184	188	188	191	186
47	221	221	222	214	204	191	191	192	201	177	194
48	233	212	207	209	208	205	179	187	190	194	181
49	227	213	213	215	212	199	174	184	184	188	187
50	241	212	219	211	199	195	179	189	185	181	192
51	220	220	213	221	191	212	189	196	192	189	184
52	223	215	209	215	190	229	186	198	199	174	184
Year	**230**	**218**	**211**	**208**	**202**	**195**	**184**	**192**	**191**	**189**	**183**

Note. Seasonal factors are always based on 52 weeks ending on Saturday. Therefore one week is eliminated in 1983 and 1988, since those years had 53 Saturdays.
The above values are based on EEI Weekly Electric Output Index—(Revised Methodology) dated January, 1958.

TABLE 19

WEEKLY ELECTRIC OUTPUT—TOTAL ELECTRIC UTILITY INDUSTRY

(EXCLUDING ALASKA AND HAWAII)

1986-1988—KILOWATTHOURS IN MILLIONS

Week Ended	1988	Week Ended	1987	Percent Change 88/87	Week Ended	1986	Percent Change 87/86
Jan. 2	50,925	Jan. 3	47,420	7.4	Jan. 4	48,274	(1.8)
9	58,056	10	50,921	14.0	11	52,092	(2.2)
16	58,251	17	51,333	13.5	18	50,349	2.0
23	53,713	24	53,867	(0.3)	25	48,516	11.0
30	55,822	31	54,077	3.2			
Feb. 6	53,718	Feb. 7	49,594	8.3	Feb. 1	52,327	3.3
13	56,388	14	50,131	12.5	8	48,016	3.3
20	52,837	21	51,096	3.4	15	52,558	(4.6)
27	52,159	28	50,075	4.2	22	47,748	7.0
					Mar. 1	48,914	2.4
Mar. 5	50,379	Mar. 7	47,967	5.0	8	48,297	(0.7)
12	49,347	14	48,305	2.2	15	46,060	4.9
19	51,926	21	47,474	9.4	22	46,359	2.4
26	49,335	28	45,561	8.3	29	44,168	3.2
Apr. 2	47,376						
9	46,803	Apr. 4	47,681	(0.6)	Apr. 5	42,906	11.1
16	47,706	11	45,955	3.8	12	44,319	3.7
23	47,678	18	44,869	6.3	19	44,467	0.9
30	48,109	25	45,536	5.7	26	44,483	2.4
		May 2	46,419	2.1	May 3	44,868	3.5
May 7	47,371	9	46,849	3.5	10	45,816	2.3
14	48,507	16	48,064	4.2	17	46,208	4.0
21	50,076	23	49,857	0.2	24	45,766	8.9
28	49,940	30	49,922	2.0	31	46,738	6.8
June 4	50,944	June 6	52,952	(1.0)	June 7	49,672	6.6
11	52,418	13	52,725	7.2	14	51,620	2.1
18	56,520	20	56,914	7.9	21	51,977	9.5
25	61,424	27	56,373	0.1	28	53,573	5.2
July 2	56,452						
9	57,593	July 4	52,808	9.1	July 5	50,884	3.8
16	62,889	11	57,302	9.8	12	55,347	3.5
23	62,180	18	56,228	10.6	19	56,973	(1.3)
30	61,461	25	60,564	1.5	26	57,324	5.7
		Aug. 1	59,685	9.6	Aug. 2	56,713	5.2
Aug. 6	65,424	8	60,700	7.7	9	53,778	12.9
13	65,358	15	57,661	12.0	16	52,404	10.0
20	64,582	22	59,117	(0.4)	23	53,802	9.9
27	58,908	29	54,284	2.3	30	49,898	8.8
Sept. 3	55,555	Sept. 5	51,362	(1.5)	Sept. 6	46,845	9.6
10	50,614	12	51,078	4.8	13	47,719	7.0
17	53,523	19	51,768	2.5	20	47,690	8.6
24	53,072	26	47,776	5.7	27	50,370	(5.1)
Oct. 1	50,513	Oct. 3	47,475	1.5			
8	48,164	10	46,008	4.1	Oct. 4	50,642	(6.3)
15	47,882	17	45,904	5.5	11	45,800	0.5
22	48,440	24	46,330	6.0	18	44,766	2.5
29	49,095	31	46,974	5.3	25	44,409	4.3
					Nov. 1	44,823	4.8
Nov. 5	49,455	Nov. 7	46,441	6.7	8	45,978	1.0
12	49,552	14	48,269	3.9	15	48,954	(1.4)
19	50,173	21	48,644	0.7	22	48,772	(0.3)
26	49,001	28	46,997	10.4	29	45,918	2.3
Dec. 3	51,873						
10	53,602	Dec. 5	50,330	6.5	Dec. 6	49,480	1.7
17	57,415	12	50,437	13.8	13	51,328	(1.7)
24	53,770	19	53,584	0.3	20	50,956	5.2
31	50,791	26	49,169	3.3	27	47,024	4.6

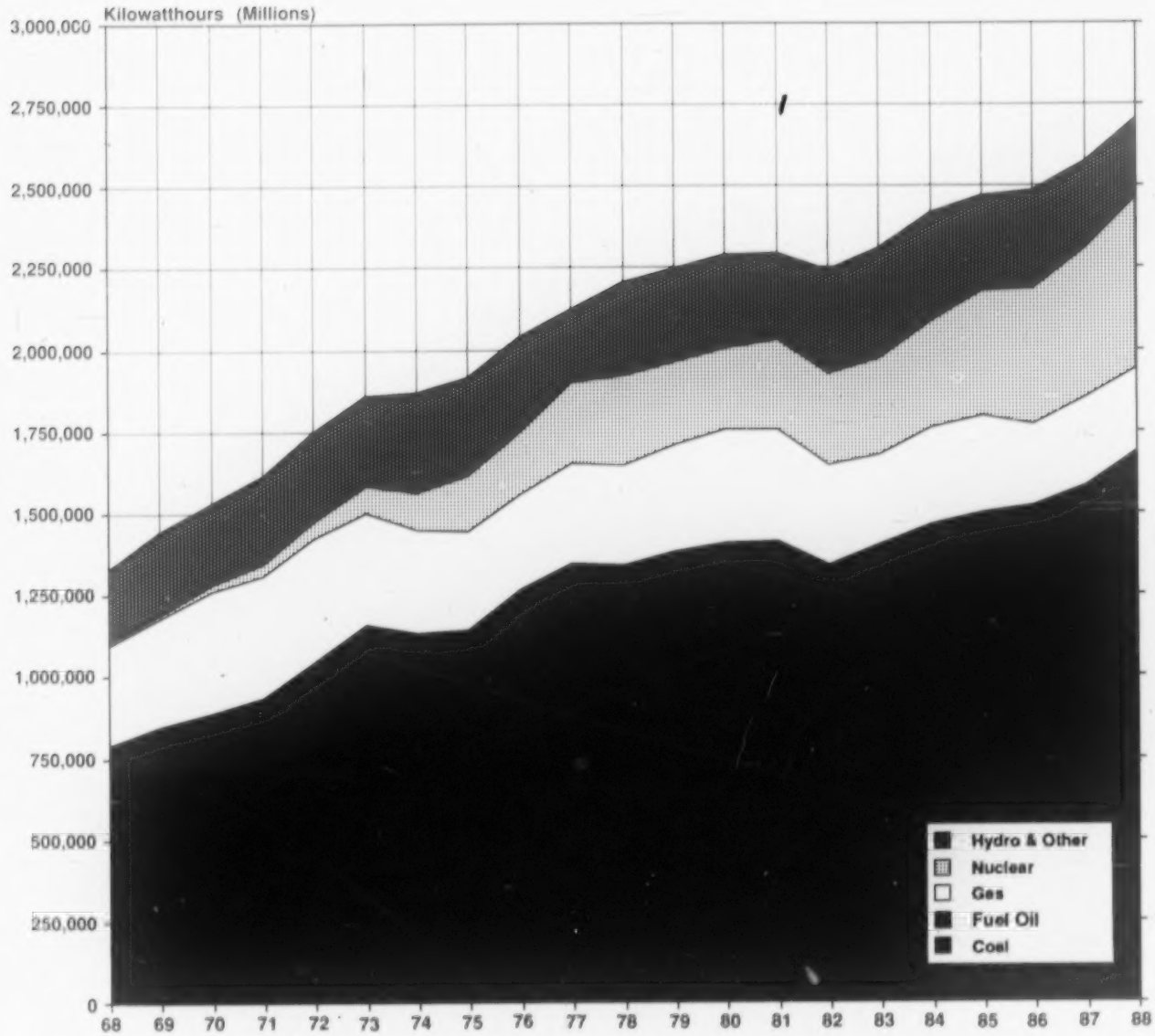
Note: 'Weekly Electric Output' is the total of that reported by the individual utilities which consists of the net electric energy generated by each respondent utility plus energy received from others less energy delivered for resale.
These figures are based on the reports of investor-owned utilities, large municipal systems, and state and Federal agencies comprising 90 percent of the total. They are then expanded to an estimated full coverage of the contiguous United States. As these data are for 52 weeks rather than for the calendar year and include net imports and purchases from industrial plants they do not add to totals for the electric utility industry shown in other tables.

FUEL
SECTION IV

CHART IV-A

ELECTRIC POWER GENERATION

TOTAL ELECTRIC UTILITY INDUSTRY
BY SOURCE



Based on Table 21, page 30.
Source: U.S. Department of Energy. Energy Information Administration. Monthly Power Plant Report *(EIA-759).*

TABLE 21

SOURCES OF ENERGY FOR ELECTRIC GENERATION
TOTAL ELECTRIC UTILITY INDUSTRY*

BY YEAR AND ENERGY SOURCE
KILOWATTHOURS IN MILLIONS

Year	Total Generation	Coal	Fuel Oil	Gas	Nuclear	Hydro	Other**
1988p	**2,701,624**	**1,538,203**	**148,819**	**252,779**	**526,901**	**222,938**	**11,984**
1987	2,572,127	1,463,781	118,493	272,621	455,270	249,695	12,267
1986	2,487,310	1,385,831	136,585	248,508	414,038	290,844	11,503
1985	2,469,841	1,402,128	100,202	291,946	383,691	281,149	10,724
1984	2,416,304	1,341,681	119,808	297,394	327,634	321,150	8,638
1983	2,310,285	1,259,424	144,499	274,098	293,677	332,130	6,456
1982	2,241,211	1,192,379	146,423	305,260	282,773	309,213	5,164
1981	2,294,812	1,203,554	206,070	345,777	272,674	260,684	6,054
1980	2,286,414	1,161,969	245,547	346,233	251,121	276,039	5,506
1979	2,247,359	1,075,595	302,948	329,486	255,155	279,790	4,387
1978	2,206,313	976,618	364,153	305,392	276,403	280,432	3,315
1977	2,124,166	985,465	357,866	305,444	250,882	220,446	4,063
1976	2,037,674	944,562	319,779	294,610	191,107	283,734	3,883
1975	1,917,619	852,972	288,873	299,766	172,506	300,065	3,437
1974	1,866,436	829,842	299,306	319,931	113,727	300,928	2,703
1973	1,856,216	845,704	312,805	340,449	83,334	271,634	2,290
1972	1,749,637	772,871	272,530	375,735	54,092	272,626	1,783
1971	1,612,589	714,676	218,608	374,026	38,106	266,314	859
1970	1,531,609	706,102	182,488	372,884	21,797	247,456	882
1969	1,442,182	706,001	137,847	333,279	13,928	250,193	934
1968	1,329,443	684,905	104,276	304,433	12,528	222,491	810

Note: Total may not equal sum of components due to independent rounding.
** Generation by petroleum coke included in fuel oil from 1968 to 1980, and 1983 to 1988. In 1981 and 1982 petroleum coke included in coal.*
*** Includes generation by geothermal, wood, waste, wind and solar.*
p Preliminary.
Source: U.S. Department of Energy. Energy Information Administration. Monthly Power Plant Report *(EIA-759).*

TABLE 22

SOURCES OF ENERGY FOR ELECTRIC GENERATION
IN PERCENT OF TOTAL
TOTAL ELECTRIC UTILITY INDUSTRY

BY YEAR AND ENERGY SOURCE

Year	Coal	Fuel Oil	Gas	Nuclear	Hydro	Other
1988p	**56.9%**	**5.5%**	**9.4%**	**19.5%**	**8.3%**	**0.4%**
1987	56.9	4.6	10.6	17.7	9.7	0.5
1986	55.7	5.5	10.0	16.6	11.7	0.5
1985	56.8	4.1	11.8	15.5	11.4	0.4
1984	55.5	5.0	12.3	13.6	13.3	0.4
1983	54.5	6.3	11.9	12.7	14.4	0.3
1982	53.2	6.5	13.6	12.6	13.8	0.2
1981	52.4	9.0	15.1	11.9	11.4	0.3
1980	50.8	10.7	15.1	11.0	12.1	0.2
1979	47.9	13.5	14.7	11.4	12.4	0.2
1978	44.3	16.5	13.8	12.5	12.7	0.2
1977	46.4	16.8	14.4	11.8	10.4	0.2
1976	46.4	15.7	14.5	9.4	13.9	0.2
1975	44.5	15.1	15.6	9.0	15.6	0.2
1974	44.5	16.0	17.1	6.1	16.1	0.1
1973	45.6	16.9	18.3	4.5	14.6	0.1
1972	44.2	15.6	21.5	3.1	15.6	0.1
1971	44.3	13.6	23.2	2.4	16.5	0.1
1970	46.1	11.9	24.3	1.4	16.2	0.1
1969	49.0	9.6	23.1	1.0	17.3	0.1
1968	51.5	7.8	22.9	0.9	16.7	0.1

Note: Total may not equal sum of components due to independent rounding.
p Preliminary.
Source: U.S. Department of Energy. Energy Information Administration. Monthly Power Plant Report *(EIA-759), as shown in Table 21.*

TABLE 23

SOURCES OF ENERGY FOR ELECTRIC GENERATION
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND ENERGY SOURCE

YEAR 1988p—KILOWATTHOURS IN MILLIONS

Division/State	Total Generation	Coal†	Fuel Oil††	Gas	Nuclear Fuel	Hydro	Other**
Total United States	**2,701,624**	**1,538,203**	**148,819**	**252,779**	**526,901**	**222,938**	**11,984**
Maine	9,530	–	2,944	–	5,017	1,569	–
New Hampshire	6,997	3,197	2,828	5	–	968	–
Vermont	5,049	–	26	–	4,114	809	100
Massachusetts	34,664	11,687	19,908	1,802	1,117	150	–
Rhode Island	764	–	749	15	–	–	–
Connecticut	36,379	2,094	11,356	111	22,251	324	242
New England	**93,383**	**16,979**	**37,811**	**1,933**	**32,499**	**3,819**	**342**
New York	124,714	22,761	39,865	14,012	24,175	23,901	–
New Jersey	40,361	7,319	5,097	4,276	23,890	(222)	–
Pennsylvania	152,932	106,239	7,915	211	37,862	705	–
Middle Atlantic	**318,007**	**136,319**	**52,878**	**18,499**	**85,928**	**24,384**	**–**
Ohio	124,034	114,564	415	63	8,455	187	351
Indiana	83,954	82,813	383	317	–	441	–
Illinois	123,340	52,994	697	435	69,166	48	–
Michigan	88,871	68,577	1,414	589	17,808	483	–
Wisconsin	45,003	31,867	97	180	11,464	1,230	164
East North Central	**465,201**	**350,815**	**3,006**	**1,584**	**106,893**	**2,389**	**514**
Minnesota	38,329	24,803	142	410	12,288	532	153
Iowa	26,983	22,613	49	404	3,163	698	57
Missouri	59,740	49,051	131	112	8,935	1,511	–
North Dakota	27,351	25,450	18	(*)	–	1,884	–
South Dakota	7,886	2,605	15	11	–	5,254	–
Nebraska	20,635	12,225	69	163	6,828	1,350	–
Kansas	31,385	23,089	147	1,489	6,650	12	*
West North Central	**212,310**	**159,836**	**571**	**2,588**	**37,865**	**11,240**	**210**
Delaware	8,953	5,788	2,848	317	–	–	–
Maryland	40,384	23,316	3,547	402	11,734	1,328	57
District of Columbia	469	–	469	–	–	–	–
Virginia	45,172	21,413	2,838	102	21,037	(218)	*
West Virginia	81,314	80,747	260	10	–	297	–
North Carolina	78,406	46,090	225	55	29,146	2,890##	–
South Carolina	65,183	23,485	96	226	40,746	631	–
Georgia	82,374	64,833	260	121	15,149	2,011	–
Florida	124,057	57,516	25,390	14,744	26,198	209	–
South Atlantic	**526,311**	**323,186**	**35,932**	**15,976**	**144,010**	**7,149**	**57**
Kentucky	76,436	73,847	126	40	–	2,423	–
Tennessee	59,858	51,122	187	16	3,940	4,591	–
Alabama	67,518	48,835	107	236	12,981	5,359	–
Mississippi	25,093	12,051	659	2,800	9,582	–	–
East South Central	**228,905**	**185,856**	**1,079**	**3,092**	**26,504**	**12,374**	**–**
Arkansas	33,764	19,873	145	2,065	8,895	2,785	–
Louisiana	56,774	18,431	272	24,286	13,785	–	–
Oklahoma	43,985	24,273	29	17,638	–	2,045	–
Texas	221,069	112,931	743	102,442	3,720	1,234	–
West South Central	**355,592**	**175,508**	**1,189**	**146,431**	**26,401**	**6,064**	**–**
Montana	24,821	16,462	30	37	–	8,237	55
Idaho	6,746	–	*	–	–	6,745	–
Wyoming	39,147	38,279	62	18	–	789	(*)
Colorado	30,893	27,801	39	647	660	1,744	2
New Mexico	26,369	24,245	45	1,979	–	100	–
Arizona	61,562	28,391	119	2,341	22,940	7,771	–
Utah	29,637	28,806	59	5	–	593	174
Nevada	20,296	16,764	542	899	–	2,091	–
Mountain	**239,472**	**180,748**	**896**	**5,925**	**23,600**	**28,072**	**232**
Washington	83,593	8,670	8	153	6,000	68,379	383
Oregon	41,048	(30)	(7)	–	6,339	34,646	99
California	125,981	–	7,503	54,010	30,863	23,474	10,131
Pacific	**250,622**	**8,641**	**7,505**	**54,163**	**43,202**	**126,499**	**10,613**
Alaska	4,195	316	356	2,588	–	935	–
Hawaii	7,627	–	7,597	*	–	14	16
Alaska & Hawaii	**11,822**	**316**	**7,953**	**2,588**	**–**	**950**	**16**

Note: Total may not equal sum of components due to independent rounding.

† Excludes petroleum coke.

†† Includes petroleum coke.

** Less than five hundred thousand kilowatthours.*

*** Includes generation by geothermal, wood, waste, wind and solar.*

p Preliminary. ( ) Denotes negative figure.

Source: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report *(EIA-759).*

TABLE 24

SOURCES OF ENERGY FOR ELECTRIC GENERATION
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND ENERGY SOURCE
YEAR 1988p—PERCENT

Division/State	Total Generation	Coal†	Fuel Oil††	Gas	Nuclear Fuel	Hydro	Other**
Total United States	**100.0%**	**56.9%**	**5.5%**	**9.4%**	**19.5%**	**8.3%**	**0.4%**
Maine	100.0	–	30.9	–	52.6	16.5	–
New Hampshire	100.0	45.7	40.4	0.1	–	13.8	–
Vermont	100.0	–	0.5	–	81.5	16.0	2.0
Massachusetts	100.0	33.7	57.4	5.2	3.2	0.4	–
Rhode Island	100.0	–	98.0	2.0	–	–	–
Connecticut	100.0	5.8	31.2	0.3	61.2	0.9	0.7
New England	**100.0**	**18.2**	**40.5**	**2.1**	**34.8**	**4.1**	**0.4**
New York	100.0	18.3	32.0	11.2	19.4	19.2	–
New Jersey	100.0	18.1	12.6	10.6	59.2	(0.5)	–
Pennsylvania	100.0	69.5	5.2	0.1	24.8	0.5	–
Middle Atlantic	**100.0**	**42.9**	**16.6**	**5.8**	**27.0**	**7.7**	**–**
Ohio	100.0	92.4	0.3	0.1	6.8	0.2	0.3
Indiana	100.0	98.6	0.5	0.4	–	0.5	–
Illinois	100.0	43.0	0.6	0.4	56.1	*	–
Michigan	100.0	77.2	1.6	0.7	20.0	0.5	–
Wisconsin	100.0	70.8	0.2	0.4	25.5	2.7	0.4
East North Central	**100.0**	**75.4**	**0.6**	**0.3**	**23.0**	**0.5**	**0.1**
Minnesota	100.0	64.7	0.4	1.1	32.1	1.4	0.4
Iowa	100.0	83.8	0.2	1.5	11.7	2.6	0.2
Missouri	100.0	82.1	0.2	0.2	15.0	2.5	–
North Dakota	100.0	93.0	0.1	(*)	–	6.9	–
South Dakota	100.0	33.0	0.2	0.1	–	66.6	–
Nebraska	100.0	59.2	0.3	0.8	33.1	6.5	–
Kansas	100.0	73.6	0.5	4.7	21.2	*	*
West North Central	**100.0**	**75.3**	**0.3**	**1.2**	**17.8**	**5.3**	**0.1**
Delaware	100.0	64.7	31.8	3.5	–	–	–
Maryland	100.0	57.7	8.8	1.0	29.1	3.3	0.1
District of Columbia	100.0	–	100.0	–	–	–	–
Virginia	100.0	47.4	6.3	0.2	46.6	(0.5)	*
West Virginia	100.0	99.3	0.3	*	–	0.4	–
North Carolina	100.0	58.8	0.3	0.1	37.2	3.7	–
South Carolina	100.0	36.0	0.1	0.3	62.5	1.0	–
Georgia	100.0	78.7	0.3	0.1	18.4	2.4	–
Florida	100.0	46.4	20.5	11.9	21.1	0.2	–
South Atlantic	**100.0**	**61.4**	**6.8**	**3.0**	**27.4**	**1.4**	*
Kentucky	100.0	96.6	0.2	0.1	–	3.2	–
Tennessee	100.0	85.4	0.3	*	6.6	7.7	–
Alabama	100.0	72.2	0.2	0.3	19.2	7.9	–
Mississippi	100.0	48.0	2.6	11.2	38.2	–	–
East South Central	**100.0**	**81.2**	**0.5**	**1.4**	**11.6**	**5.4**	**–**
Arkansas	100.0	58.9	0.4	6.1	26.3	8.2	–
Louisiana	100.0	32.5	0.5	42.8	24.3	–	–
Oklahoma	100.0	55.2	0.1	40.1	–	4.6	–
Texas	100.0	51.1	0.3	46.3	1.7	0.6	–
West South Central	**100.0**	**49.4**	**0.3**	**41.2**	**7.4**	**1.7**	**–**
Montana	100.0	66.3	0.1	0.1	–	33.2	0.2
Idaho	100.0	–	*	–	–	100.0	–
Wyoming	100.0	97.8	0.2	*	–	2.0	(*)
Colorado	100.0	90.0	0.1	2.1	2.1	5.6	*
New Mexico	100.0	91.9	0.2	7.5	–	0.4	–
Arizona	100.0	46.1	0.2	3.8	37.3	12.6	–
Utah	100.0	97.2	0.2	*	–	2.0	0.6
Nevada	100.0	82.6	2.7	4.4	–	10.3	–
Mountain	**100.0**	**75.5**	**0.4**	**2.5**	**9.9**	**11.7**	**0.1**
Washington	100.0	10.4	*	0.2	7.2	81.8	0.5
Oregon	100.0	(0.1)	(*)	–	15.4	84.4	0.2
California	100.0	–	6.0	42.9	24.5	18.6	8.0
Pacific	**100.0**	**3.4**	**3.0**	**21.6**	**17.2**	**50.5**	**4.2**
Alaska	100.0	7.5	8.5	61.7	–	22.3	–
Hawaii	100.0	–	99.6	*	–	0.2	0.2
Alaska & Hawaii	**100.0**	**2.7**	**67.3**	**21.9**	**–**	**8.0**	**0.1**

Note: Total may not equal sum of components due to independent rounding.
†Excludes petroleum coke.
††Includes petroleum coke.
**Less than one tenth of one percent.*
***Includes generation by geothermal, wood, waste, wind and solar.*
p Preliminary. ( ) Denotes negative figure.
Source: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report *(EIA-759), as shown in Table 23.*

TABLE 25

CONSUMPTION OF FOSSIL FUELS FOR ELECTRIC GENERATION TOTAL ELECTRIC UTILITY INDUSTRY

BY YEAR AND KIND OF FUEL

Year	Coal* (Thousand Short Tons)	Fuel Oil (Thousand 42-Gallon Barrels)	Gas (Million Cubic Feet)	Total Fossil Fuel in Coal Equivalents**† (Thousand Short Tons)	Net Generation by Fuels** (kWh in Millions)	Heat Rate† (Btu per kWh)	Lbs. of Coal per kWh†
1988p	**757,522**	**247,768**	**2,634,804**	**983,930‡**	**1,939,800**	**10,328**	**0.985**
1987	717,894	199,378	2,844,051	944,420‡	1,854,895	10,354	0.981
1986	685,056	230,482	2,602,370	907,720‡	1,770,925	10,423	0.989
1985	693,841	173,414	3,044,083	926,793‡	1,794,276	10,429	0.990
1984	664,399	204,479	3,111,342	909,156‡	1,758,882	10,385	0.990
1983	625,211	245,497	2,910,767	867,621‡	1,678,021	10,547	0.993
1982	593,666	249,771	3,225,518	858,869‡	1,644,062	10,517	0.996
1981	596,936	351,111	3,640,154	922,133‡	1,755,401	10,506	0.992
1980	569,453	420,214	3,681,595	916,952‡	1,753,749	10,489	0.980
1979	527,317	523,256	3,490,517	837,371	1,708,029	10,470	0.981
1978	481,624	635,829	3,188,370	811,814	1,646,163	10,495	0.986
1977	477,215	623,656	3,190,571	798,425	1,648,775	10,449	0.969
1976	448,431	555,583	3,080,627	740,112	1,558,951	10,369	0.950
1975	406,032	506,081	3,157,591	686,236	1,441,611	10,383	0.952
1974	392,344	536,140	3,429,072	685,115	1,449,079	10,481	0.946
1973	388,190	559,842	3,640,756	688,043	1,498,958	10,429	0.918
1972	352,391	493,663	3,976,762	647,968	1,421,136	10,479	0.912
1971	327,878	396,438	3,975,972	599,766	1,307,310	10,536	0.918
1970	320,818	335,504	3,931,996	573,152	1,261,474	10,508	0.909
1969	310,641	251,027	3,487,642	517,937	1,177,127	10,457	0.880
1968	297,779	188,642	3,147,909	475,475	1,093,614	10,371	0.870

**Beginning in 1982, petroleum coke excluded from Coal.*
*** Excludes geothermal, wood, waste, and nuclear fuels, and includes petroleum coke.*
† EEI estimate.
‡ Beginning in 1980, Coal Equivalents are calculated on the basis of Btu instead of generation data.
p Preliminary.
Sources: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report (EIA-759).

TABLE 26

CONSUMPTION OF FOSSIL FUELS FOR ELECTRIC GENERATION
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND KIND OF FUEL—YEAR 1988p

Division/State	Coal (Thousand Short Tons)	Fuel Oil (Thousand 42-Gallon Barrels)	Gas (Million Cubic Feet)	Total Fossil Fuel in Coal Equivalents†‡ (Thousand Short Tons)	Net Generation by Fuels† (kWh in Millions)	Heat Rate‡ (Btu per kWh)	Lbs of Coal per kWh‡
Total United States	**757,522**	**247,768**	**2,634,804**	**983,930**	**1,939,800**	**10,328**	**0.985**
Maine	–	4,906	–	1,173	2,944	10,557	–
New Hampshire	1,217	4,870	55	2,408	6,030	10,631	0.761
Vermont	–	75	–	16	26	15,660	–
Massachusetts	4,260	32,198	19,874	12,741	33,398	9,921	0.729
Rhode Island	–	1,538	185	377	764	12,959	–
Connecticut	854	18,500	1,260	5,303	13,562	10,517	0.816
New England	**6,330**	**62,087**	**21,374**	**22,018**	**56,723**	**10,213**	**0.746**
New York	9,120	65,002	148,493	30,008	76,638	10,475	0.801
New Jersey	3,009	9,438	51,066	7,249	16,692	11,096	0.822
Pennsylvania	43,166	12,653	2,649	46,459	114,365	10,099	0.813
Middle Atlantic	**55,295**	**87,094**	**202,208**	**83,717**	**207,695**	**10,317**	**0.811**
Ohio	48,893	921	974	49,173	115,042	10,113	0.854
Indiana	40,060	379	3,455	40,326	83,513	10,373	0.967
Illinois	26,681	2,250	5,706	27,620	54,126	10,888	1.007
Michigan	29,968	2,914	14,991	30,861	70,580	10,191	0.874
Wisconsin	17,861	229	2,739	18,071	32,144	10,903	1.121
East North Central	**163,462**	**6,693**	**27,866**	**166,052**	**355,405**	**10,379**	**0.932**
Minnesota	16,205	137	5,217	16,554	25,356	10,696	1.307
Iowa	12,844	123	5,229	13,166	23,065	10,992	1.136
Missouri	24,356	339	1,623	24,529	49,294	10,373	0.993
North Dakota	21,686	46	2	21,707	25,468	11,205	1.704
South Dakota	2,388	58	223	2,431	2,632	11,882	1.833
Nebraska	7,744	140	2,046	7,908	12,457	10,911	1.267
Kansas	14,742	283	18,890	15,884	24,724	11,365	1.277
West North Central	**99,967**	**1,126**	**33,229**	**102,179**	**162,995**	**10,852**	**1.251**
Delaware	2,420	4,365	2,824	3,594	8,953	10,729	0.836
Maryland	9,020	6,866	5,336	10,932	27,266	10,094	0.774
District of Columbia	–	1,100	–	266	469	14,086	–
Virginia	8,469	4,357	1,096	9,563	24,352	10,048	0.791
West Virginia	31,704	356	73	31,788	81,017	9,733	0.785
North Carolina	17,766	458	1,068	17,915	46,369	9,724	0.771
South Carolina	9,210	195	2,378	9,352	23,806	9,910	0.784
Georgia	26,513	495	1,573	26,703	65,213	9,856	0.818
Florida	23,528	40,660	154,550	40,448	97,649	10,117	0.818
South Atlantic	**128,628**	**58,854**	**168,898**	**150,561**	**375,094**	**9,939**	**0.796**
Kentucky	31,818	202	452	31,888	74,013	10,017	0.862
Tennessee	21,010	365	225	21,099	51,326	9,873	0.822
Alabama	20,002	174	2,574	20,149	49,178	9,961	0.819
Mississippi	4,859	1,166	33,279	6,504	15,510	10,500	0.806
East South Central	**77,689**	**1,906**	**36,530**	**79,640**	**190,027**	**10,003**	**0.836**
Arkansas	12,295	271	22,075	13,710	22,083	10,718	1.237
Louisiana	12,301	543	250,323	29,054	42,988	10,723	1.335
Oklahoma	14,435	60	177,222	24,896	41,940	10,475	1.189
Texas	82,933	1,361	1,043,143	156,380	216,116	10,404	1.469
West South Central	**121,964**	**2,234**	**1,492,763**	**224,040**	**323,127**	**10,475**	**1.390**
Montana	10,410	63	286	10,451	16,529	10,844	1.265
Idaho	–	1	–	**	***	12,159	–
Wyoming	23,563	121	183	23,615	38,359	10,729	1.231
Colorado	15,087	84	8,488	15,530	28,486	10,653	1.085
New Mexico	14,661	94	21,267	15,906	26,269	10,793	1.209
Arizona	13,932	219	25,328	15,203	30,851	10,618	0.981
Utah	12,544	103	196	12,577	28,870	10,096	0.871
Nevada	8,153	945	10,658	8,908	18,205	10,984	0.973
Mountain	**98,351**	**1,628**	**66,406**	**102,190**	**187,569**	**10,647**	**1.088**
Washington	5,561	16	1,753	5,680	8,831	10,484	1.283
Oregon	–	1	–	**	(36)	–	–
California	–	12,395	552,938	40,139	61,513	10,361	–
Pacific	**5,561**	**12,413**	**554,691**	**45,819**	**70,308**	**10,377**	**1.287**
Alaska	276	688	30,841	2,510	3,259	11,841	1.747
Hawaii	–	13,044	*	5,204	7,597	10,640	–
Alaska & Hawaii	**276**	**13,732**	**30,841**	**7,714**	**10,856**	**10,983**	**1.747**

Note: Total may not equal sum of components due to independent rounding.
† Excludes geothermal, wood, waste, and nuclear fuels, and includes petroleum coke.
‡ EEI estimate.
** Less than five hundred thousand cubic feet.*
*** Less than five hundred short tons.*
**** Less than five hundred thousand kilowatt hours. ( ) Denotes negative figure.*
p Preliminary.
Source: U.S. Department of Energy, Energy Information Administration, Monthly Power Plant Report (EIA-759).

TABLE 27

ANALYSIS OF FUEL FOR ELECTRIC GENERATION TOTAL ELECTRIC UTILITY INDUSTRY

FUEL BURNED UNDER BOILERS AND BY INTERNAL COMBUSTION ENGINES
1985-1988 BY GEOGRAPHIC DIVISION

		Composite Averages			Coal (a)			Oil (b)			Gas (c)		
Division	Year	Cost per Million Btu Consumed	Cost of Fuel per Net kWh	Btu per Net kWh	Cost per Million Btu Consumed	Cost per Ton	Btu per Pound	Cost per Million Btu Consumed	Cost per Bbl	Btu per Gallon	Cost per Million Btu Consumed	Cost per MCF	Btu per Cu Ft
United States	1988	170.7¢	1.76¢	10,328	152.2¢	$31.99	10,511	260.5¢	$16.32	149,097	227.7¢	234.06¢	1,028
	1987	177.7	1.84	10,354	157.8	33.32	10,556	304.2	19.04	149,015	226.6	233.52	1,030
	1986	184.5	1.92	10,423	165.5	34.85	10,531	283.4	17.74	149,050	232.3	239.90	1,033
	1985	217.7	2.27	10,429	173.1	36.48	10,538	450.6	28.22	149,116	343.2	355.44	1,036
New England	1988	224.4	2.29	10,213	194.3	51.07	13,141	237.2	14.93	149,833	225.4	231.22	1,026
	1987	252.9	2.58	10,212	195.4	51.38	13,147	282.0	17.80	150,288	244.8	251.27	1,027
	1986	238.9	2.45	10,270	204.8	54.25	13,243	251.4	15.83	149,923	235.9	242.28	1,027
	1985	354.3	3.66	10,334	217.7	57.53	13,211	428.4	27.05	150,309	346.8	359.46	1,037
Middle Atlantic	1988	192.4	1.98	10,317	154.3	38.78	12,569	268.3	16.74	148,549	245.6	252.64	1,028
	1987	205.6	2.12	10,332	156.6	38.98	12,450	311.5	19.37	148,050	272.7	280.49	1,028
	1986	201.6	2.10	10,415	161.5	40.07	12,402	285.8	17.80	148,266	249.5	259.23	1,039
	1985	254.7	2.67	10,471	171.5	42.43	12,371	454.5	28.38	148,656	381.3	394.00	1,033
East North Central	1988	166.2	1.72	10,379	164.1	36.44	11,102	325.5	20.06	146,747	278.3	147.35	530
	1987	174.5	1.81	10,350	172.2	38.34	11,133	385.1	24.00	148,393	298.1	163.17	547
	1986	186.0	1.93	10,393	180.4	39.87	11,051	589.3	36.60	147,883	409.7	246.11	601
	1985	191.1	1.98	10,378	186.8	41.22	11,033	593.8	36.60	146,760	477.0	304.56	639
West North Central	1988	122.2	1.33	10,852	120.2	20.89	8,687	350.5	20.96	142,364	213.1	210.89	990
	1987	129.0	1.41	10,969	127.2	22.40	8,807	396.5	23.27	139,729	225.3	223.98	994
	1986	136.5	1.50	10,978	134.3	23.45	8,729	350.8	21.35	144,908	268.2	262.69	979
	1985	145.5	1.59	10,951	142.7	24.90	8,723	528.1	30.95	139,537	303.2	295.90	976
South Atlantic	1988	181.8	1.81	9,939	172.8	42.92	12,416	246.4	15.54	150,189	215.6	217.77	1,010
	1987	190.5	1.90	9,947	175.6	43.55	12,402	292.9	18.44	149,903	271.4	273.80	1,009
	1986	193.7	1.93	9,970	185.2	45.81	12,367	254.2	16.03	150,120	208.8	210.53	1,008
	1985	217.0	2.17	10,013	195.0	47.94	12,290	422.7	26.56	149,628	329.0	332.14	1,010
East South Central	1988	157.3	1.57	10,003	155.5	37.12	11,933	356.0	21.76	145,501	190.0	194.26	1,022
	1987	162.1	1.64	10,137	161.0	38.57	11,979	405.6	24.07	141,326	188.2	193.54	1,028
	1986	171.4	1.74	10,156	169.4	40.25	11,881	232.4	14.54	148,945	227.4	236.10	1,038
	1985	185.8	1.89	10,175	182.3	43.10	11,817	595.6	35.61	142,358	276.6	287.64	1,040
West South Central	1988	180.2	1.89	10,475	153.7	23.82	7,749	418.9	25.63	145,643	208.9	216.40	1,036
	1987	183.1	1.92	10,470	161.0	24.71	7,672	467.9	28.23	143,673	205.1	212.70	1,037
	1986	192.6	2.04	10,570	164.0	25.24	7,698	450.9	27.73	146,451	218.6	227.18	1,039
	1985	240.6	2.55	10,583	168.2	26.66	7,923	457.4	28.96	150,737	304.9	316.80	1,039
Mountain	1988	116.6	1.24	10,647	111.7	21.73	9,729	296.5	18.21	146,267	222.9	227.82	1,022
	1987	116.6	1.25	10,720	111.6	21.74	9,737	324.4	19.83	145,515	235.2	241.25	1,026
	1986	121.8	1.33	10,940	114.3	21.98	9,615	369.1	22.40	144,539	270.4	279.85	1,035
	1985	134.2	1.44	10,733	120.8	23.52	9,735	516.3	31.18	143,759	359.4	372.94	1,038
Pacific	1988	266.2	2.76	10,377	144.4	23.40	8,103	272.6	16.95	148,075	285.5	295.92	1,037
	1987	244.2	2.56	10,478	161.4	26.07	8,075	298.4	18.30	146,027	253.3	263.38	1,040
	1986	285.1	3.14	11,002	160.0	25.81	8,065	458.9	28.16	146,103	284.4	296.59	1,043
	1985	420.6	4.52	10,748	161.2	25.05	7,771	552.8	33.93	146,122	446.5	468.67	1,050
Alaska	1988	124.8	1.48	11,841	263.5	41.13	7,806	618.0	35.97	138,581	99.7	99.85	1,001
	1987	118.0	1.50	12,670	199.8	31.26	7,823	376.2	22.13	140,038	87.2	87.84	1,007
	1986	147.1	2.17	14,721	181.7	28.85	7,938	332.6	19.44	139,178	94.5	94.54	1,001
	1985	133.0	1.68	12,649	180.3	28.58	7,927	550.1	31.44	136,089	69.9	70.19	1,004
Hawaii	1988	293.6	3.12	10,640	–	–	–	293.6	18.29	148,286	–	–	–
	1987	345.2	3.66	10,598	–	–	–	345.2	21.53	148,458	–	–	–
	1986	312.2	3.29	10,551	–	–	–	312.2	19.45	148,315	–	–	–
	1985	491.6	5.15	10,474	–	–	–	491.6	30.74	148,869	–	–	–

(a) Coal includes bituminous and anthracite coal and relatively small amounts of lignite.
(b) Oil includes fuel oil, crude oil, small amounts of tar and gasoline, and petroleum coke.
(c) Gas includes natural and manufactured gas and waste gas.

TABLE 28

NUCLEAR FUEL USED FOR ELECTRIC GENERATION

1985-1988 BY GEOGRAPHIC DIVISION

Division	Year	Average Cost per Million Btu Consumed (cents)	Average Cost of Fuel per Net kWh (mills)	Average Btu per Net kWh
United States	1988	72.64¢	7.88	10,854
	1987	71.11	7.68	10,803
	1986	70.45	7.61	10,802
	1985	69.36	7.50	10,817
New England	1988	79.13	8.54	10,792
	1987	84.90	9.05	10,663
	1986	83.93	9.02	10,750
	1985	77.99	8.35	10,707
Middle Atlantic	1988	65.29	7.12	10,912
	1987	68.67	7.51	10,931
	1986	67.09	7.30	10,873
	1985	70.21	7.66	10,903
East North Central	1988	76.48	8.30	10,848
	1987	70.15	7.66	10,922
	1986	70.37	7.68	10,907
	1985	71.74	7.89	10,994
West North Central	1988	58.25	6.21	10,664
	1987	58.38	6.23	10,664
	1986	63.62	6.77	10,646
	1985	65.63	6.99	10,650
South Atlantic	1988	68.05	7.29	10,709
	1987	64.22	6.89	10,725
	1986	62.69	6.70	10,689
	1985	61.55	6.60	10,724
East South Central	1988	91.48	10.09	11,034
	1987	74.13	8.30	11,193
	1986	78.74	8.78	11,149
	1985	83.39	8.97	10,752
West South Central	1988	81.96	8.78	10,715
	1987	85.96	9.24	10,754
	1986	87.65	9.56	10,887
	1985	76.90	8.39	10,914
Mountain	1988	81.77	8.49	10,383
	1987	85.05	8.85	10,408
	1986	89.12	9.42	10,573
	1985	N/A	N/A	N/A
Pacific	1988	78.47	8.36	10,659
	1987	86.66	9.30	10,735
	1986	79.64	8.66	10,878
	1985	72.11	7.84	10,869
Alaska & Hawaii	1988	—	—	—
	1987	—	—	—
	1986	—	—	—
	1985	—	—	—

N/A Not Available

TABLE 29

ANALYSIS OF FUEL FOR ELECTRIC GENERATION
TOTAL ELECTRIC UTILITY INDUSTRY

FUEL BURNED UNDER BOILERS AND BY INTERNAL COMBUSTION ENGINES
BY STATE – YEAR 1988

	Composite Averages			Coal (a)			Oil (b)			Gas (c)		
Division/State	Cost per Million Btu Consumed	Cost of Fuel per Net kWh	Btu per Net kWh	Cost per Million Btu Consumed	Cost per Ton	Btu per Pound	Cost per Million Btu Consumed	Cost per Bbl	Btu per Gallon	Cost per Million Btu Consumed	Cost per MCF	Btu per Cu Ft
Total United States	**170.7¢**	**1.76¢**	**10,328**	**152.2¢**	**$31.99**	**10,511**	**260.5¢**	**$16.32**	**149,097**	**227.7¢**	**234.06¢**	**1,028**
Maine	241.7	2.55	10,557	–	–	–	241.7	15.19	149,577	–	–	–
New Hampshire	191.8	2.04	10,631	191.9	50.95	13,277	191.7	12.45	154,560	–	–	–
Vermont	469.9	7.36	15,660	–	–	–	469.9	27.16	137,629	–	–	–
Massachusetts	220.4	2.19	9,921	186.0	48.66	13,078	238.8	14.94	148,959	226.6	232.40	1,026
Rhode Island	237.6	3.08	12,959	–	–	–	238.6	15.10	150,601	181.0	186.75	1,032
Connecticut	243.6	2.56	10,517	238.3	63.18	13,258	245.0	15.45	150,162	211.9	218.46	1,031
New England	**224.4**	**2.29**	**10,213**	**194.3**	**51.07**	**13,141**	**237.2**	**14.93**	**149,833**	**225.4**	**231.22**	**1,026**
New York	227.9	2.39	10,475	156.4	41.85	13,376	266.7	16.67	148,771	237.7	244.36	1,028
New Jersey	241.1	2.67	11,096	180.5	47.30	13,102	294.8	18.28	147,614	267.0	275.02	1,030
Pennsylvania	160.0	1.62	10,099	152.0	37.58	12,365	258.3	16.07	148,115	292.4	300.57	1,028
Middle Atlantic	**192.4**	**1.98**	**10,317**	**154.3**	**38.78**	**12,569**	**268.3**	**16.74**	**148,549**	**245.6**	**252.64**	**1,028**
Ohio	158.1	1.60	10,113	157.3	37.23	11,833	344.2	21.05	145,636	322.7	327.12	1,014
Indiana	152.2	1.58	10,373	151.5	32.54	10,736	498.2	28.56	136,493	243.4	249.92	1,027
Illinois	191.6	2.09	10,888	187.3	39.88	10,644	343.9	21.64	149,790	315.2	322.64	1,024
Michigan	178.0	1.81	10,191	174.8	40.76	11,661	294.7	18.05	145,842	256.7	51.20	199
Wisconsin	159.9	1.74	10,903	158.0	30.57	9,674	391.2	22.61	137,606	292.1	292.89	1,003
East North Central	**166.2**	**1.72**	**10,379**	**164.1**	**36.44**	**11,102**	**325.5**	**20.06**	**146,747**	**278.3**	**147.35**	**530**
Minnesota	126.9	1.36	10,696	124.9	21.61	8,650	362.8	21.28	139,683	202.8	203.24	1,002
Iowa	128.4	1.41	10,992	126.2	23.31	9,233	381.2	22.16	138,438	211.3	211.29	1,000
Missouri	143.6	1.49	10,373	142.8	29.78	10,427	393.6	23.34	141,188	266.2	263.39	989
North Dakota	73.0	0.82	11,205	72.8	9.48	6,511	453.0	26.51	139,359	394.6	417.36	1,058
South Dakota	127.2	1.51	11,882	125.2	16.18	6,458	447.6	25.89	137,723	229.5	229.47	1,000
Nebraska	97.3	1.06	10,911	93.7	16.11	8,594	300.4	18.26	144,721	266.2	255.31	959
Kansas	133.5	1.52	11,365	129.2	23.03	8,914	305.7	18.71	145,723	204.7	201.79	986
West North Central	**122.2**	**1.33**	**10,852**	**120.2**	**20.89**	**8,687**	**350.5**	**20.96**	**142,364**	**213.1**	**210.89**	**990**
Delaware	204.9	2.20	10,729	185.8	48.05	12,932	247.9	15.65	150,342	223.6	222.57	995
Maryland	185.1	1.87	10,094	166.8	42.17	12,639	273.4	17.03	148,286	263.4	274.54	1,042
District of Columbia	295.2	4.16	14,086	–	–	–	295.2	17.72	142,963	–	–	–
Virginia	172.2	1.73	10,048	157.0	40.20	12,804	292.5	18.04	146,851	241.5	253.99	1,052
West Virginia	149.2	1.45	9,733	148.7	36.92	12,417	485.3	28.28	138,752	–	–	–
North Carolina	179.6	1.75	9,724	178.5	45.03	12,612	398.6	23.22	138,687	284.5	293.22	1,031
South Carolina	180.0	1.78	9,910	178.5	45.09	12,634	491.7	28.81	139,476	252.5	260.01	1,030
Georgia	181.8	1.79	9,856	180.8	43.83	12,120	388.6	23.46	143,750	285.9	293.15	1,025
Florida	208.3	2.11	10,117	197.3	48.28	12,237	232.1	14.74	151,265	211.1	212.79	1,008
South Atlantic	**181.8**	**1.81**	**9,939**	**172.8**	**42.92**	**12,416**	**246.4**	**15.54**	**150,189**	**215.6**	**217.77**	**1,010**
Kentucky	130.9	1.31	10,017	130.7	30.46	11,650	382.0	22.27	138,765	232.0	236.92	1,021
Tennessee	142.4	1.41	9,873	141.4	33.96	12,006	379.3	22.30	140,000	–	–	–
Alabama	201.1	2.00	9,961	200.8	48.79	12,148	307.7	17.56	135,826	230.9	230.48	998
Mississippi	191.3	2.01	10,500	182.8	45.97	12,574	352.9	22.07	148,902	187.4	191.83	1,024
East South Central	**157.3**	**1.57**	**10,003**	**155.5**	**37.12**	**11,933**	**356.0**	**21.76**	**145,501**	**190.0**	**194.26**	**1,022**
Arkansas	165.0	1.77	10,718	165.1	28.20	8,539	525.8	32.26	146,082	141.3	143.97	1,019
Louisiana	165.8	1.78	10,723	160.4	25.39	7,915	420.3	26.03	147,465	166.1	173.69	1,046
Oklahoma	201.1	2.11	10,475	148.4	26.27	8,852	161.5	9.59	141,379	274.6	286.58	1,043
Texas	180.4	1.88	10,404	151.8	22.44	7,392	401.2	24.39	144,772	208.9	215.80	1,033
West South Central	**180.2**	**1.89**	**10,475**	**153.7**	**23.82**	**7,749**	**418.9**	**25.63**	**145,643**	**208.9**	**216.40**	**1,036**
Montana	57.4	0.62	10,844	56.9	9.78	8,586	443.4	26.19	140,646	152.7	180.10	1,180
Idaho	497.6	6.05	12,159	–	–	–	497.6	29.27	140,045	–	–	–
Wyoming	85.6	0.92	10,729	85.0	14.81	8,714	412.6	24.35	140,527	367.5	377.05	1,039
Colorado	117.4	1.25	10,653	113.7	22.24	9,778	371.2	21.89	140,381	232.8	223.93	962
New Mexico	125.1	1.35	10,793	117.6	21.15	8,991	432.0	24.84	136,939	208.9	214.56	1,027
Arizona	159.2	1.69	10,618	150.5	32.55	10,811	391.3	23.98	145,958	215.1	221.95	1,032
Utah	123.2	1.24	10,096	122.9	28.42	11,563	410.3	23.99	139,176	366.9	321.00	875
Nevada	160.5	1.76	10,984	151.3	33.79	11,166	258.5	16.05	147,863	264.0	272.24	1,031
Mountain	**116.6**	**1.24**	**10,647**	**111.7**	**21.73**	**9,729**	**296.5**	**18.21**	**146,267**	**222.9**	**227.82**	**1,022**
Washington	146.8	1.54	10,484	144.4	23.40	8,103	444.6	26.21	140,379	252.0	264.59	1,050
Oregon	–	–	–	–	–	–	–	–	–	–	–	–
California	284.0	2.94	10,361	–	–	–	272.4	16.94	148,084	285.6	296.02	1,037
Pacific	**266.2**	**2.76**	**10,377**	**144.4**	**23.40**	**8,103**	**272.6**	**16.95**	**148,075**	**285.5**	**295.92**	**1,037**
Alaska	124.8	1.48	11,841	263.5	41.13	7,806	618.0	35.97	138,581	99.7	99.85	1,001
Hawaii	293.6	3.12	10,640	–	–	–	293.6	18.29	148,286	–	–	–
Alaska & Hawaii	**241.6**	**2.65**	**10,983**	**263.5**	**41.13**	**7,806**	**298.0**	**18.54**	**148,146**	**99.7**	**99.85**	**1,001**

See page 35 for footnotes.

TABLE 30
NUCLEAR FUEL USED FOR ELECTRIC GENERATION
BY STATE—YEAR 1988

Division/State	Average Cost per Million Btu Consumed (cents)	Average Cost of Fuel per Net kWh (mills)	Average Btu per Net kWh
Total United States	**72.64¢**	**7.88**	**10,854**
Maine	60.05	6.83	11,366
New Hampshire	—	—	—
Vermont	59.63	6.41	10,749
Massachusetts	83.06	10.22	12,301
Rhode Island	—	—	—
Connecticut	87.17	9.24	10,595
New England	**79.13**	**8.54**	**10,792**
New York	58.50	6.33	10,827
New Jersey	66.33	7.11	10,722
Pennsylvania	68.76	7.62	11,087
Middle Atlantic	**65.29**	**7.12**	**10,912**
Ohio	126.77	13.40	10,567
Indiana	—	—	—
Illinois	72.82	7.92	10,869
Michigan	87.63	9.74	11,110
Wisconsin	43.78	4.60	10,514
East North Central	**76.48**	**8.30**	**10,848**
Minnesota	48.05	5.22	10,871
Iowa	68.36	7.38	10,790
Missouri	72.94	7.68	10,535
North Dakota	—	—	—
South Dakota	—	—	—
Nebraska	63.68	6.82	10,716
Kansas	47.15	4.88	10,340
West North Central	**58.25**	**6.21**	**10,664**
Delaware	—	—	—
Maryland	49.29	5.29	10,733
District of Columbia	—	—	—
Virginia	52.19	5.67	10,870
West Virginia	—	—	—
North Carolina	59.38	6.29	10,591
South Carolina	59.39	6.24	10,510
Georgia	99.13	10.93	11,023
Florida	93.38	10.11	10,831
South Atlantic	**68.05**	**7.29**	**10,709**
Kentucky	—	—	—
Tennessee	75.20	8.64	11,490
Alabama	62.93	6.94	11,028
Mississippi	138.11	14.99	10,856
East South Central	**91.48**	**10.09**	**11,034**
Arkansas	72.65	7.87	10,829
Louisiana	95.19	10.13	10,638
Oklahoma	—	—	—
Texas	47.08	5.05	10,729
West South Central	**81.96**	**8.78**	**10,715**
Montana	—	—	—
Idaho	—	—	—
Wyoming	—	—	—
Colorado	N/A	N/A	N/A
New Mexico	—	—	—
Arizona	81.77	8.49	10,383
Utah	—	—	—
Nevada	—	—	—
Mountain	**81.77**	**8.49**	**10,383**
Washington	49.78	5.26	10,566
Oregon	46.84	4.95	10,561
California	90.43	9.67	10,698
Pacific	**78.47**	**8.36**	**10,659**
Alaska	—	—	—
Hawaii	—	—	—
Alaska & Hawaii	—	—	—

N/A Not Available

TABLE 31

AVERAGE COST OF FOSSIL FUELS DELIVERED TO STEAM-ELECTRIC UTILITY PLANTS

BY YEARS
(CENTS PER MILLION BTU)

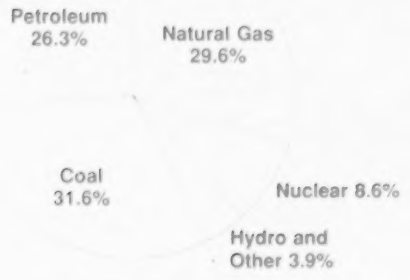
Year	Coal	Residual Oil*	Natural Gas**	All Fossil Fuels**
1988	146.7	240.3	226.5	164.5
1987	150.6	297.6	223.5r	170.7
1986	157.9	240.1	234.4	175.0
1985	164.8	424.4	343.1	209.6
1984	166.4	481.2	358.3	219.2
1983	165.6	457.8	347.4	220.6

**Residual fuel oil prices include Fuel Oil No. 4, No. 5, No. 6, and topped crude fuel oil prices. The weighted average for all fossil fuels includes both residual fuel oil prices and light oil (Fuel Oil No. 2, kerosene, and jet fuel) prices.*
***Includes small quantities of coke oven gas, refinery gas and blast furnace gas.*
r Revised.
Source: U.S. Department of Energy, Energy Information Administration, Monthly Energy Review.

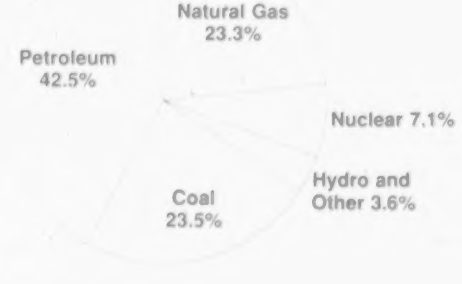
ENERGY
SECTION V

CHART V-A
ENERGY PRODUCTION AND CONSUMPTION
BY PRIMARY ENERGY SOURCE

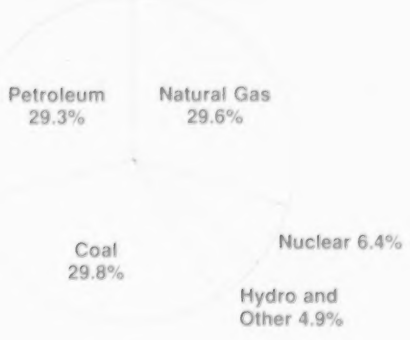
1988 Production
Total BTU's=65.644 Quads



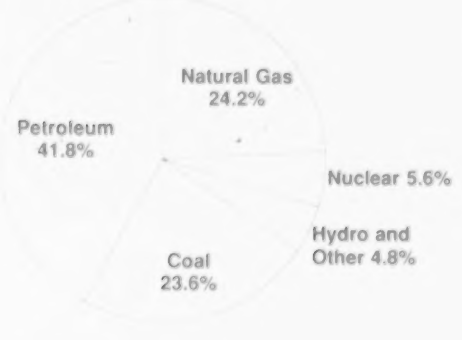
1988 Consumption
Total BTU's=79.948 Quads



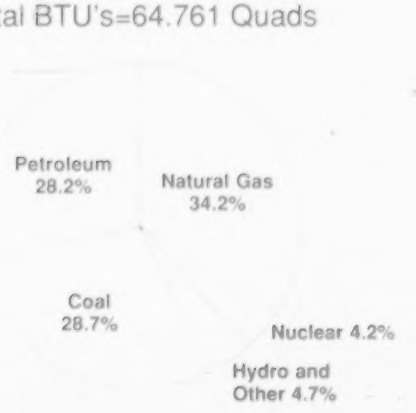
1985 Production
Total BTU's=64.765 Quads



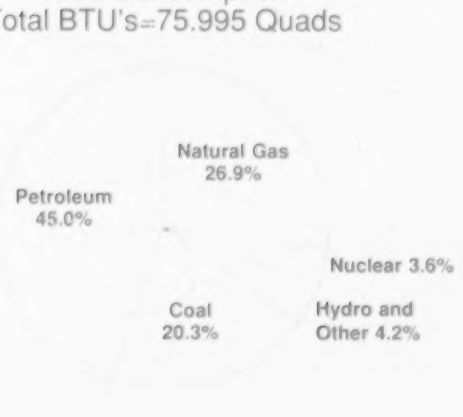
1985 Consumption
Total BTU's=73.945 Quads



1980 Production
Total BTU's=64.761 Quads



1980 Consumption
Total BTU's=75.995 Quads



Source: U.S. Department of Energy. Energy Information Administration. 'Monthly Energy Review' February, 1989.

TABLE 32

ENERGY SUPPLY AND DISPOSITION BALANCE BY YEARS

(QUADRILLION BTU)

	1988p	1987r	1986	1985	1984	1983	1982	1981	1980	1979	1978
SUPPLY											
Production											
Crude Oil & Lease Condensate	17.26	17.67	18.38	18.99	18.85	18.39	18.31	18.15	18.25	18.10	18.43
Natural Gas Plant Liquids	2.26	2.22	2.15	2.24	2.27	2.18	2.19	2.31	2.25	2.29	2.25
Natural Gas	17.19	17.05	16.47	16.91	17.93	16.53	18.25	19.70	19.91	20.08	19.49
Coal	20.94	20.14	19.51	19.33	19.72	17.25	18.64	18.38	18.60	17.54	14.91
Nuclear	5.68	4.91	4.47	4.15	3.55	3.20	3.13	3.01	2.74	2.78	3.02
Hydro	2.32	2.59	3.02r	2.94	3.35r	3.53r	3.27r	2.76	2.90	2.93	2.94
Other	0.24	0.24	0.23	0.21	0.17	0.13	0.11	0.13	0.11	0.09	0.07
Total Production	**65.88**	**64.82**	**64.23r**	**64.77r**	**65.84r**	**61.21r**	**63.90r**	**64.42**	**64.76**	**63.80**	**61.10**
Imports											
Crude Oil	10.83	10.07	9.00	6.81	7.30	7.08	7.42	9.34	11.19	13.83	13.46
Refined Petroleum Products	4.36	4.10	4.20	3.80	4.13	3.57	3.36	3.30	3.46	4.11	4.36
Natural Gas	1.28	0.99	0.75	0.95	0.85	0.94	0.95	0.92	1.01	1.30	0.99
Other	0.48	0.60	0.48	0.54	0.48	0.44	0.36	0.42	0.31	0.38	0.44
Total Imports	**16.95**	**15.76**	**14.43**	**12.10**	**12.76**	**12.03**	**12.09**	**13.97**	**15.97**	**19.62**	**19.25**
Adjustments	1.51	0.04	(0.36)	1.31	(0.70)	1.00	(0.51)	(0.08)	(1.05)	(1.65)	(0.34)
Total Supply	**84.34**	**80.62**	**78.30r**	**78.18r**	**77.90r**	**74.24r**	**75.48r**	**78.32**	**79.68**	**81.77**	**80.02**
DISPOSITION											
Exports											
Coal	2.50	2.09	2.25	2.44	2.15	2.04	2.79	2.94	2.42	1.75	1.08
Other	1.90	1.76	1.81	1.80	1.65	1.68	1.84	1.38	1.30	1.11	0.86
Total Exports	**4.40**	**3.85**	**4.06r**	**4.23**	**3.80**	**3.72**	**4.63**	**4.33**	**3.72**	**2.87**	**1.93**
Consumption											
Refined Petroleum Products	33.96	32.87	32.20	30.92	31.05	30.05	30.23	31.93	34.20	37.12	37.97
Natural Gas	18.60	17.67	16.71	17.83	18.51	17.36	18.51	19.93	20.39	20.67	20.00
Coal	18.81	18.01	17.26	17.48	17.07	15.89	15.32	15.91	15.42	15.04	13.77
Nuclear	5.68	4.91	4.47	4.15	3.55	3.20	3.13	3.01	2.74	2.78	3.02
Hydro	2.62	3.07	3.39r	3.36	3.76r	3.90r	3.57r	3.11	3.12	3.14	3.14
Other	0.28	0.25	0.21	0.20	0.16	0.12	0.09	0.11	0.08	0.15	0.19
Total Consumption	**79.94**	**76.77**	**74.24r**	**73.95r**	**74.10r**	**70.52r**	**70.85r**	**73.99**	**75.96**	**78.90**	**78.09**
Total Disposition	**84.34**	**80.62**	**78.30r**	**78.18r**	**77.90r**	**74.24r**	**75.48r**	**78.32**	**79.68**	**81.77**	**80.02**

	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968
SUPPLY										
Production										
Crude Oil & Lease Condensate	17.45	17.26	17.73	18.57	19.49	20.04	20.03	20.40	19.56	19.3
Natural Gas Plant Liquids	2.33	2.33	2.37	2.47	2.57	2.60	2.54	2.51	2.42	2.3
Natural Gas	19.57	19.48	19.64	21.21	22.19	22.21	22.28	21.67	20.45	19.07
Coal	15.76	15.65	14.99	14.07	13.99	14.09	13.19	14.61	13.86	13.61
Nuclear	2.70	2.11	1.90	1.27	0.91	0.58	0.41	0.24	0.15	0.14
Hydro	2.33	2.98	3.15	3.18	2.86	2.86	2.82	2.63	2.65	2.35
Other	0.08	0.08	0.07	0.06	0.05	0.03	0.02	0.02	0.02	0.01
Total Production	**60.22**	**59.89**	**59.86**	**60.84**	**62.06**	**62.42**	**61.29**	**62.07**	**59.10**	**56.81**
Imports										
Crude Oil	14.03	11.24	8.72	7.40	6.89	4.71	3.57	2.81	2.99	2.76
Refined Petroleum Products	4.73	4.43	4.23	5.73	6.58	5.59	4.97	4.66	3.91	3.46
Natural Gas	1.04	0.99	0.98	0.99	1.06	1.05	0.96	0.85	0.75	0.67
Other	0.30	0.18	0.19	0.30	0.21	0.11	0.08	0.07	0.06	0.05
Total Imports	**20.09**	**16.84**	**14.11**	**14.41**	**14.73**	**11.46**	**9.58**	**8.39**	**7.71**	**6.93**
Adjustments	(1.95)	(0.18)	(1.07)	(0.48)	(0.46)	(0.48)	(0.82)	(1.37)	(0.47)	(0.71)
Total Supply	**78.36**	**76.55**	**72.91**	**74.77**	**76.33**	**73.40**	**70.06**	**69.10**	**66.34**	**63.03**
DISPOSITION										
Exports										
Coal	1.44	1.60	1.76	1.62	1.43	1.53	1.55	1.94	1.53	1.38
Other	0.63	0.59	0.60	0.60	0.63	0.61	0.63	0.73	0.62	0.65
Total Exports	**2.07**	**2.19**	**2.36**	**2.22**	**2.05**	**2.14**	**2.18**	**2.66**	**2.15**	**2.03**
Consumption										
Refined Petroleum Products	37.12	35.17	32.73	33.45	34.84	32.95	30.56	29.52	28.34	26.98
Natural Gas	19.93	20.35	19.95	21.73	22.51	22.70	22.47	21.79	20.68	19.21
Coal	13.92	13.58	12.66	12.66	12.97	12.08	11.60	12.26	12.38	12.33
Nuclear	2.70	2.11	1.90	1.27	0.91	0.58	0.41	0.24	0.15	0.14
Hydro	2.51	3.07	3.22	3.31	3.01	2.94	2.86	2.65	2.66	2.34
Other	0.10	0.08	0.09	1.12	0.04	0.01	(0.02)	(0.04)	(0.02)	*
Total Consumption	**76.29**	**74.36**	**70.55**	**72.54**	**74.28**	**71.26**	**67.89**	**66.43**	**64.19**	**61.00**
Total Disposition	**78.36**	**76.55**	**72.91**	**74.77**	**76.33**	**73.40**	**70.06**	**69.10**	**66.34**	**63.03**

Note: Total may not equal sum of components due to independent rounding.
** Less than .005 Quadrillion BTU.*
( ) Denotes negative figure. p Preliminary. r Revised.
Source: U.S. Department of Energy, Energy Information Administration. Annual Energy Review 1988.

TABLE 33

ANNUAL CONSUMPTION OF FOSSIL ENERGY RESOURCES

BY KIND OF FUEL, BY SECTOR*
(QUADRILLION BTU)

	1988p	1987r	1986	1985	1984	1983
Coal						
Residential & Commercial	0.18	0.16	0.18	0.18	0.21	0.19
Industrial	2.80	2.67	2.64	2.76	2.84	2.49
Transportation	**	**	**	**	**	**
Electric Utilities	15.85	15.17	14.44	14.54	14.02	13.21
Total	18.83	18.01	17.26	17.48	17.07	15.89
Natural Gas (Dry)						
Residential & Commercial	7.54	6.94	6.82r	7.08	7.29	7.03r
Industrial	7.78	7.26	6.69	7.08	7.45	6.82
Transportation	0.56	0.54	0.50	0.52	0.55	0.51
Electric Utilities	2.72	2.94	2.69	3.16	3.22	3.00
Total	18.60	17.67	16.71	17.83	18.51	17.36
Petroleum						
Residential & Commerical	2.70	2.62	2.58	2.57	2.59	2.50
Industrial	8.44	8.19	7.94r	7.72r	7.90r	7.42
Transportation	21.26	20.80	20.23r	19.54r	19.28r	18.59
Electric Utilities	1.56	1.26	1.45	1.09	1.29	1.54
Total	33.96	32.87	32.20	30.92	31.05	30.05

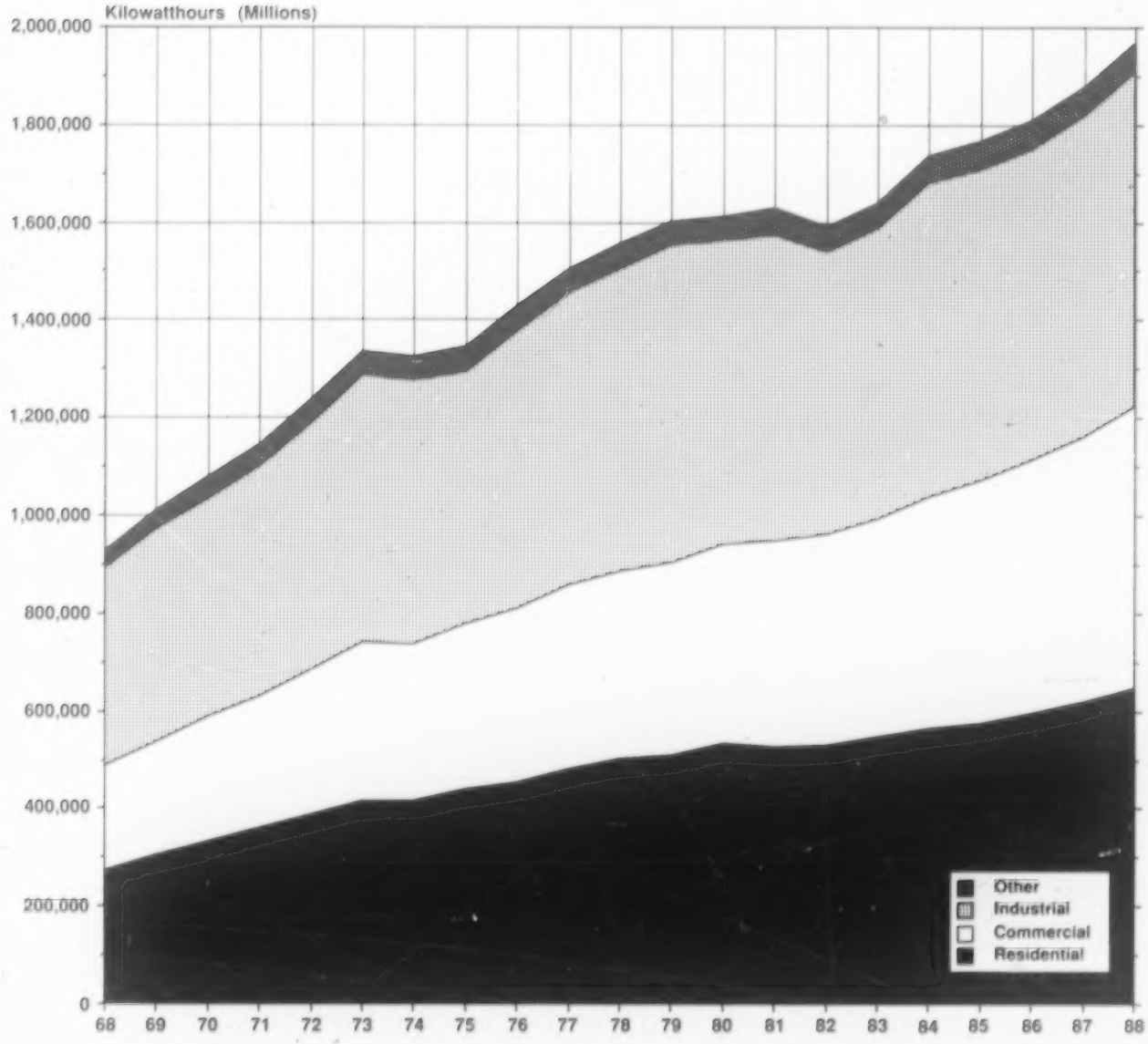
Note: Total may not equal sum of components due to independent rounding.
** Sector data excludes electricity sales and energy losses attributed to electric generation.*
*** Since 1976 the amount of coal consumed by the transportation sector has been negligible.*
Total consumption by fuels will not agree with Energy Supply and Disposition Balance (Table 32) due to data revisions.
p Preliminary. r Revised.
Source: U.S. Department of Energy. Energy Information Administration. Monthly Energy Review.

ENERGY SALES
SECTION VI

CHART VI-A

ENERGY SALES TO ULTIMATE CUSTOMERS

INVESTOR-OWNED ELECTRIC UTILITIES



Based on Table 39, page 44

TABLE 38

ENERGY SALES – TOTAL ELECTRIC UTILITY INDUSTRY

BY YEAR AND CLASS OF SERVICE
KILOWATTHOURS IN MILLIONS

Year	Total Sales	Exports to Canada and Mexico	Total Sales to Ultimate Customers	Residential	Commercial*	Industrial*	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Interdepartmental
1988p	**2,556,976**	**7,067**	**2,549,909**	**885,146**	**695,181**	**880,947**	**14,537**	**64,598**	**5,110**	**4,392**
1987r	2,441,364	5,881	2,435,483	846,457	658,445	843,709	14,386	63,047	4,898	4,541
1986	2,359,560	4,816	2,354,744	820,015	628,965	818,982	15,037	61,888	4,689	5,167
1985	2,310,847	4,965	2,305,882	792,875	605,865	820,301	14,644	62,165	4,704	5,328
1984	2,283,143	2,558	2,280,585	782,608	578,083	835,486	14,205	59,894	4,483	5,826
1983	2,163,124	3,337	2,159,787	750,293	545,601	782,984	13,944	57,267	4,300	5,398
1982	2,103,281	3,540	2,099,741	732,678	516,959	770,398	14,236	55,745	4,288	5,438
1981	2,152,506	1,832	2,150,674	730,479	521,698	819,641	14,683	53,737	4,206	6,230
1980	2,130,190	4,096	2,126,094	734,411	524,122	793,812	14,832	48,284	4,275	6,358
1979	2,086,582	2,182	2,084,400	695,996	494,723	817,617	14,792	49,604	4,256	7,412
1978	2,020,004	2,186	2,017,818	679,156	480,748	782,141	14,803	49,509	4,336	7,125
1977	1,953,535	2,744	1,950,791	652,345	469,227	757,168	14,418	46,242	4,212	7,179
1976	1,852,003	2,378	1,849,625	613,072	440,625	725,169	14,413	45,625	4,338	6,383
1975	1,738,107	5,083	1,733,024	586,149	418,069	661,558	13,907	43,625	4,273	5,443
1974	1,703,495	2,726	1,700,769	554,960	392,716	689,435	13,313	40,721	4,258	5,366
1973	1,705,773	2,570	1,703,203	554,171	396,903	687,235	12,836	42,340	4,186	5,532
1972	1,580,466	2,752	1,577,714	511,423	361,859	639,467	12,193	43,190	4,440	5,142
1971	1,469,955	3,514	1,466,441	479,080	333,752	592,700	11,673	39,819	4,537	4,880
1970	1,395,568	4,209	1,391,359	447,795	312,750	572,522	11,183	37,816	4,633	4,660
1969	1,311,008	3,830	1,307,178	407,922	286,686	557,220	10,772	35,861	4,531	4,186
1968	1,206,606	4,285	1,202,321	367,692	265,151	518,834	10,302	32,162	4,540	3,640

Note: Total may not equal sum of components due to independent rounding.
**Commercial and Industrial are not wholly comparable on a year-to-year basis due to changes from one classification to another.*
p Preliminary. r Revised.

TABLE 39

ENERGY SALES – INVESTOR-OWNED ELECTRIC UTILITIES

BY YEAR AND CLASS OF SERVICE
KILOWATTHOURS IN MILLIONS

Year	Total Sales	Sales for Resale†	Total Sales to Ultimate Customers	Residential	Commercial*	Industrial*	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Interdepartmental
1988p	**2,078,588**	**109,468**	**1,969,120**	**648,557**	**575,621**	**685,845**	**10,397**	**44,414**	**2,399**	**1,887**
1987r	1,986,233	106,675	1,879,558	618,496	544,616	658,417	10,395	43,195	2,239	2,200
1986	1,913,682	105,621	1,808,061	594,019	518,639	637,116	10,348	42,948	2,261	2,729
1985	1,871,702	102,773	1,768,929	573,253	498,320	638,513	10,339	43,565	2,252	2,687
1984	1,841,195	104,168	1,737,027	563,703	473,470	643,466	10,379	40,760	2,045	3,204
1983	1,749,915	109,540	1,640,375	546,080	445,300	597,405	10,445	36,396	1,929	2,820
1982	1,701,020	109,796	1,591,224	530,713	431,598	576,380	10,716	36,967	1,924	2,925
1981	1,745,234	116,248	1,628,986	527,119	420,014	628,481	10,918	37,623	1,939	2,892
1980	1,732,553	118,745	1,613,808	532,025	408,265	623,472	10,820	34,449	2,156	2,621
1979	1,719,640	117,408	1,602,232	509,655	394,511	648,031	10,854	34,165	2,103	2,913
1978	1,675,477	118,716	1,556,761	501,409	384,726	620,470	11,042	34,386	2,085	2,643
1977	1,619,820	115,409	1,504,411	481,167	375,903	598,042	10,912	33,208	2,450	2,729
1976	1,530,286	99,496	1,430,790	453,774	355,555	569,134	11,276	34,810	3,930	2,311
1975	1,447,147	101,273	1,345,874	439,496	340,082	515,798	10,868	33,528	4,158	1,944
1974	1,418,958	93,201	1,325,757	416,333	319,706	542,234	10,409	30,876	4,161	2,038
1973	1,417,386	82,990	1,334,396	416,851	323,018	545,912	10,034	32,452	4,086	2,043
1972	1,316,379	76,572	1,239,807	386,561	297,028	507,080	9,581	33,491	4,333	1,733
1971	1,215,614	70,009	1,145,605	358,564	272,703	468,512	9,206	30,618	4,424	1,578
1970	1,142,777	63,032	1,079,745	333,895	254,684	447,664	8,814	28,721	4,520	1,447
1969	1,070,721	58,641	1,012,080	304,497	232,965	433,422	8,441	26,928	4,417	1,410
1968	984,542	55,572	928,970	272,792	215,090	403,468	8,089	23,908	4,424	1,199

Note: Total may not equal sum of components due to independent rounding.
† To non-investor-owned electric utilities and exports.
** Commercial and Industrial are not wholly comparable on a year-to-year basis due to changes from one classification to another.*
p Preliminary. r Revised.

TABLE 40

ENERGY SALES IN PERCENT OF TOTAL TOTAL ELECTRIC UTILITY INDUSTRY

BY YEAR AND CLASS OF SERVICE

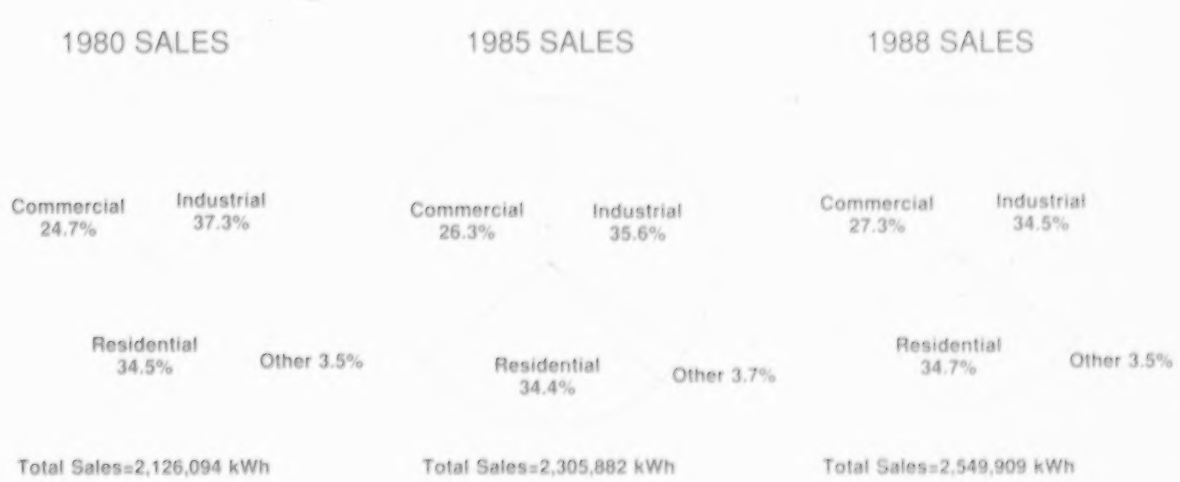
Year	Residential	Commercial	Industrial	Street & Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
1988p	**34.7%**	**27.3%**	**34.5%**	**0.6%**	**2.5%**	**0.2%**	**0.2%**
1987r	34.8	27.0	34.6	0.6	2.6	0.2	0.2
1986	34.8	26.7	34.8	0.6	2.7	0.2	0.2
1985	34.4	26.3	35.6	0.6	2.7	0.2	0.2
1984	34.3	25.4	36.6	0.6	2.6	0.2	0.3
1983	34.7	25.3	36.3	0.6	2.7	0.2	0.2
1982	34.9	24.6	36.7	0.7	2.7	0.2	0.2
1981	34.0	24.2	38.1	0.7	2.5	0.2	0.3
1980	34.5	24.7	37.3	0.7	2.3	0.2	0.3
1979	33.4	23.7	39.2	0.7	2.4	0.2	0.4
1978	33.7	23.8	38.8	0.7	2.4	0.2	0.4
1977	33.4	24.1	38.8	0.7	2.4	0.2	0.4
1976	33.2	23.8	39.2	0.8	2.5	0.2	0.3
1975	33.8	24.1	38.2	0.8	2.5	0.3	0.3
1974	32.6	23.1	40.5	0.8	2.4	0.3	0.3
1973	32.5	23.3	40.4	0.8	2.5	0.2	0.3
1972	32.4	23.0	40.5	0.8	2.7	0.3	0.3
1971	32.7	22.8	40.4	0.8	2.7	0.3	0.3
1970	32.2	22.5	41.2	0.8	2.7	0.3	0.3
1969	31.2	21.9	42.7	0.8	2.7	0.4	0.3
1968	30.6	22.1	43.1	0.8	2.7	0.4	0.3

Based on sales data in Table 38. p Preliminary. r Revised.

CHART VI-B

ENERGY SALES

TOTAL ELECTRIC UTILITY INDUSTRY
BY YEAR AND CLASS OF SERVICE
KILOWATTHOURS IN MILLIONS



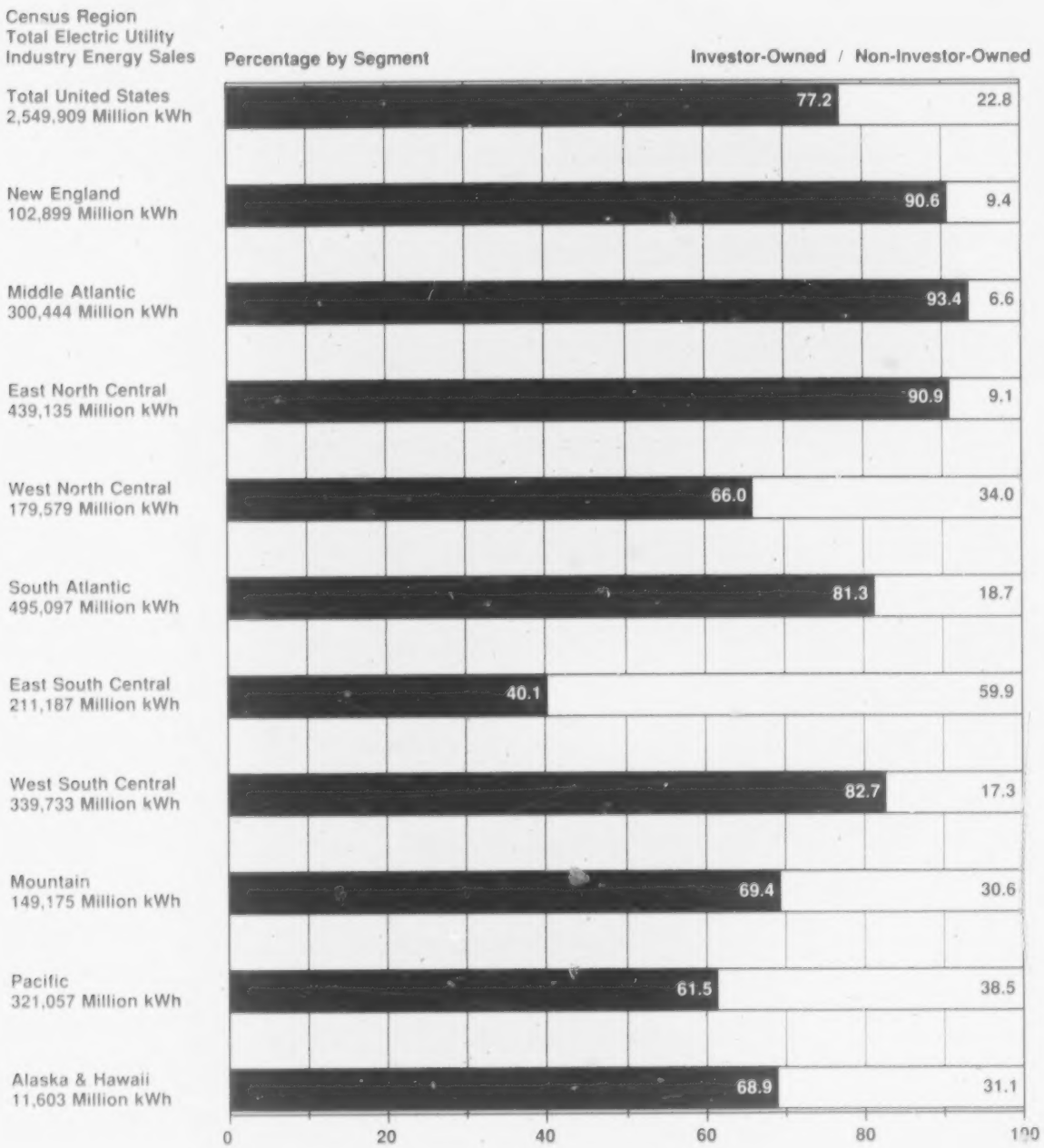
Based on Table 40, as shown above.

CHART VI-C

ENERGY SALES TO ULTIMATE CUSTOMERS

BY INVESTOR-OWNED AND NON-INVESTOR-OWNED ELECTRIC UTILITIES

1988p



p Preliminary.

Based on Table 41A, page 47 and Table 42A, page 49.

TABLE 41A

ENERGY SALES
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND CLASS OF SERVICE

YEAR 1988p – KILOWATTHOURS IN MILLIONS

Division/State	Total to Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**2,549,909**	**885,146**	**695,181**	**880,947**	**14,537**	**64,598**	**5,110**	**4,392**
Maine	11,265	3,904	2,572	4,620	61	108	–	1
New Hampshire	8,510	3,468	1,939	3,003	39	61	–	–
Vermont	4,854	2,013	1,455	1,342	20	23	–	*
Massachusetts	44,675	15,738	17,594	10,281	391	580	91	–
Rhode Island	6,220	2,319	2,316	1,399	74	111	–	–
Connecticut	27,376	10,439	10,080	6,482	197	41	126	10
New England	**102,899**	**37,881**	**35,956**	**27,127**	**782**	**924**	**217**	**12**
New York	125,558	37,322	46,625	30,230	1,117	7,595	2,637	32
New Jersey	62,079	20,644	25,030	15,938	437	2	6	22
Pennsylvania	112,807	37,772	27,303	46,288	516	121	736	71
Middle Atlantic	**300,444**	**95,738**	**98,958**	**92,456**	**2,071**	**7,718**	**3,379**	**125**
Ohio	133,972	38,706	28,663	62,275	654	3,617	47	10
Indiana	65,819	22,105	14,716	28,372	332	241	13	40
Illinois	109,592	33,639	29,430	38,889	729	6,479	425	3
Michigan	82,325	25,275	19,527	36,181	484	806	–	52
Wisconsin	47,427	16,092	12,338	18,240	390	271	–	96
East North Central	**439,135**	**135,816**	**104,673**	**183,958**	**2,589**	**11,414**	**485**	**200**
Minnesota	45,361	14,806	7,671	22,184	221	467	–	11
Iowa	28,540	10,562	6,094	11,135	193	556	–	1
Missouri	50,201	20,888	17,235	11,203	255	598	9	13
North Dakota	6,634	2,986	1,298	1,843	97	407	–	3
South Dakota	6,170	2,878	1,720	1,186	53	333	–	*
Nebraska	17,031	6,671	5,374	4,209	136	575	–	66
Kansas	25,642	9,113	8,806	7,346	172	204	–	1
West North Central	**179,579**	**67,904**	**48,198**	**59,106**	**1,126**	**3,141**	**9**	**95**
Delaware	7,466	2,513	2,082	2,823	32	12	–	4
Maryland	47,523	18,467	10,931	17,506	335	12	191	81
District of Columbia	9,380	1,465	4,793	2,809	98	–	215	–
Virginia	69,834	28,144	18,743	15,541	282	7,124	–	–
West Virginia	22,421	7,568	4,814	9,950	72	18	–	*
North Carolina	83,523	32,185	21,264	28,454	322	1,280	–	18
South Carolina	52,662	17,199	10,679	24,087	115	573	–	10
Georgia	74,167	27,794	20,013	25,562	388	265	145	–
Florida	128,121	62,739	44,357	16,924	534	3,354	75	136
South Atlantic	**495,097**	**198,074**	**137,676**	**143,657**	**2,175**	**12,639**	**626**	**250**
Kentucky	53,979	16,851	8,757	21,242	250	6,837	–	43
Tennessee	72,259	28,775	7,631	35,351	390	54	–	58
Alabama	56,656	19,691	10,009	26,539	344	25	–	48
Mississippi	28,294	11,384	6,646	9,762	189	308	–	4
East South Central	**211,187**	**76,701**	**33,043**	**92,894**	**1,172**	**7,224**	**–**	**153**
Arkansas	25,423	10,125	5,824	8,961	121	391	–	–
Louisiana	59,033	19,472	12,238	24,116	297	1,815	–	1,095
Oklahoma	36,131	14,253	9,756	10,132	138	1,853	–	–
Texas	219,146	74,775	57,322	79,793	948	6,089	–	220
West South Central	**339,733**	**118,625**	**85,140**	**123,001**	**1,503**	**10,148**	**–**	**1,315**
Montana	12,597	3,292	2,793	6,289	66	132	–	24
Idaho	17,040	5,377	4,770	6,814	36	43	–	*
Wyoming	11,071	1,716	2,207	7,046	32	55	–	16
Colorado	28,648	9,523	13,002	5,707	195	221	–	–
New Mexico	12,646	3,395	4,261	4,193	74	687	–	36
Arizona	38,786	14,697	12,783	9,540	303	1,140	26	297
Utah	14,940	4,121	4,490	5,640	56	632	–	1
Nevada	13,448	4,818	3,565	4,644	87	334	–	1
Mountain	**149,175**	**46,938**	**47,871**	**49,873**	**849**	**3,244**	**26**	**374**
Washington	82,743	26,884	17,133	36,044	577	2,045	18	42
Oregon	38,155	13,782	10,715	13,386	143	86	–	43
California	200,159	63,117	71,894	55,610	1,444	5,965	350	1,780
Pacific	**321,057**	**103,782**	**99,741**	**105,040**	**2,164**	**8,097**	**368**	**1,865**
Alaska	3,884	1,539	1,911	336	47	49	–	2
Hawaii	7,719	2,148	2,014	3,499	58	–	–	–
Alaska & Hawaii	**11,603**	**3,687**	**3,926**	**3,835**	**105**	**49**	**–**	**2**

Note: Total may not equal sum of components due to independent rounding.

p Preliminary.

** Less than five hundred thousand kilowatthours.*

TABLE 41B

ENERGY SALES
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND CLASS OF SERVICE

YEAR 1987r—KILOWATTHOURS IN MILLIONS

Division/State	Total to Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**2,435,483**	**846,457**	**658,445**	**843,709**	**14,386**	**63,047**	**4,898**	**4,541**
Maine	10,718	3,726	2,476	4,351	61	102	–	2
New Hampshire	8,042	3,267	1,807	2,873	39	56	–	–
Vermont	4,630	1,940	1,387	1,260	20	23	–	*
Massachusetts	42,182	14,673	16,647	9,919	390	554	–	–
Rhode Island	5,934	2,186	2,167	1,403	74	104	–	–
Connecticut	25,679	9,671	9,442	6,212	196	27	123	10
New England	**97,184**	**35,461**	**33,925**	**26,017**	**780**	**867**	**123**	**12**
New York	118,891	35,391	43,772	28,727	1,099	7,290	2,581	31
New Jersey	58,736	19,308	23,245	15,719	432	2	6	24
Pennsylvania	107,138	35,734	25,970	43,995	534	118	719	68
Middle Atlantic	**284,766**	**90,433**	**92,987**	**88,441**	**2,066**	**7,411**	**3,306**	**123**
Ohio	130,502	36,894	27,420	61,964	658	3,504	46	16
Indiana	62,465	20,947	14,138	26,764	332	236	11	36
Illinois	104,750	31,924	28,023	37,464	722	6,209	406	1
Michigan	76,961	24,041	18,628	33,027	484	727	–	54
Wisconsin	44,863	15,219	11,638	17,236	406	270	–	93
East North Central	**419,541**	**129,025**	**99,847**	**176,455**	**2,603**	**10,947**	**464**	**200**
Minnesota	41,614	13,800	7,055	20,079	223	446	–	11
Iowa	26,976	10,027	5,773	10,444	194	537	–	1
Missouri	48,229	19,933	16,425	11,025	252	573	8	12
North Dakota	6,339	2,750	1,412	1,695	94	386	–	3
South Dakota	5,691	2,670	1,558	1,108	53	302	–	*
Nebraska	16,131	6,347	5,094	3,979	136	531	–	44
Kansas	24,456	8,638	8,366	7,088	172	191	–	1
West North Central	**169,436**	**64,165**	**45,683**	**55,418**	**1,123**	**2,966**	**8**	**72**
Delaware	7,013	2,328	1,936	2,703	31	12	–	3
Maryland	44,912	17,230	10,267	16,808	326	12	193	76
District of Columbia	9,007	1,410	4,580	2,708	94	–	215	–
Virginia	66,678	26,858	17,753	14,887	277	6,903	–	–
West Virginia	21,042	7,224	4,618	9,101	78	21	–	–
North Carolina	81,223	31,524	20,346	27,759	312	1,266	–	17
South Carolina	51,966	16,929	10,312	24,035	115	566	–	10
Georgia	71,771	27,172	18,782	25,047	375	260	135	–
Florida	120,948	59,404	40,243	17,431	522	3,154	78	117
South Atlantic	**474,561**	**190,079**	**128,835**	**140,477**	**2,130**	**12,194**	**622**	**224**
Kentucky	50,840	16,105	8,328	18,985	248	7,112	–	62
Tennessee	69,461	28,077	7,933	32,944	391	52	–	65
Alabama	54,410	19,089	9,700	25,227	336	23	–	36
Mississippi	27,285	11,138	6,319	9,251	199	374	–	3
East South Central	**201,997**	**74,408**	**32,280**	**86,407**	**1,174**	**7,562**	**–**	**166**
Arkansas	24,415	9,883	5,675	8,382	119	358	–	–
Louisiana	58,808	19,711	11,893	23,637	302	1,874	–	1,391
Oklahoma	35,004	13,640	9,514	9,782	140	1,728	–	–
Texas	211,769	72,138	55,258	77,412	937	5,817	–	205
West South Central	**329,996**	**115,572**	**82,340**	**119,213**	**1,498**	**9,778**	**–**	**1,596**
Montana	12,184	3,142	2,648	6,193	68	112	–	21
Idaho	16,056	5,158	4,506	6,313	36	42	–	–
Wyoming	10,640	1,664	2,171	6,693	32	57	–	23
Colorado	27,435	9,212	11,835	5,986	186	216	–	–
New Mexico	12,154	3,301	4,088	3,930	72	715	–	48
Arizona	36,584	13,820	12,108	8,796	292	1,183	27	357
Utah	13,920	3,972	4,312	4,936	57	641	–	2
Nevada	12,682	4,524	3,331	4,454	85	286	–	1
Mountain	**141,655**	**44,794**	**45,001**	**47,301**	**828**	**3,253**	**27**	**452**
Washington	75,901	25,383	16,377	32,455	258	1,375	20	33
Oregon	36,745	13,190	10,515	12,772	145	80	–	42
California	192,533	60,345	66,884	55,127	1,672	6,558	329	1,618
Pacific	**305,179**	**98,918**	**93,776**	**100,354**	**2,076**	**8,014**	**349**	**1,693**
Alaska	3,869	1,531	1,888	340	50	58	–	3
Hawaii	7,298	2,070	1,884	3,286	58	–	–	–
Alaska & Hawaii	**11,167**	**3,601**	**3,771**	**3,626**	**108**	**58**	**–**	**3**

Note: Total may not equal sum of components due to independent rounding.

r Revised.

** Less than five hundred thousand kilowatthours.*

TABLE 42A

ENERGY SALES
INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND CLASS OF SERVICE

YEAR 1988p—KILOWATTHOURS IN MILLIONS

Division/State	Total to Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**1,969,120**	**648,557**	**575,621**	**685,845**	**10,397**	**44,414**	**2,399**	**1,887**
Maine	10,960	3,756	2,522	4,520	58	103	–	–
New Hampshire	7,814	3,048	1,736	2,934	36	60	–	–
Vermont	3,981	1,610	1,345	1,004	14	7	–	–
Massachusetts	38,922	13,597	16,418	8,134	336	346	91	–
Rhode Island	6,189	2,301	2,311	1,392	74	111	–	–
Connecticut	25,399	9,895	9,626	5,567	184	–	126	–
New England	**93,264**	**34,207**	**33,959**	**23,551**	**702**	**627**	**217**	**–**
New York	109,226	35,906	46,025	23,786	600	2,807	70	32
New Jersey	61,249	20,257	24,887	15,642	435	–	6	22
Pennsylvania	110,112	36,022	26,785	45,890	507	101	736	71
Middle Atlantic	**280,588**	**92,185**	**97,698**	**85,318**	**1,542**	**2,908**	**811**	**125**
Ohio	124,503	33,832	26,970	59,531	629	3,485	47	10
Indiana	55,931	16,554	13,300	25,587	271	166	13	40
Illinois	103,066	30,139	27,610	37,900	710	6,280	425	3
Michigan	75,104	22,672	17,248	34,038	414	680	–	52
Wisconsin	40,716	13,016	11,167	15,925	340	229	–	39
East North Central	**399,320**	**116,212**	**96,295**	**172,982**	**2,364**	**10,839**	**485**	**144**
Minnesota	33,139	7,856	4,965	19,847	153	307	–	11
Iowa	22,198	6,919	5,275	9,470	170	363	–	1
Missouri	37,765	13,860	14,414	8,962	213	315	–	2
North Dakota	3,569	1,577	607	1,211	47	124	–	3
South Dakota	3,341	1,235	1,152	891	30	33	–	*
Nebraska	–	–	–	–	–	–	–	–
Kansas	18,525	6,429	6,418	5,512	143	22	–	1
West North Central	**118,538**	**37,877**	**32,831**	**45,893**	**756**	**1,163**	**–**	**18**
Delaware	6,091	1,842	1,825	2,391	29	–	–	4
Maryland	44,891	16,913	10,309	17,168	228	–	191	81
District of Columbia	9,380	1,465	4,793	2,809	98	–	215	–
Virginia	62,185	23,945	17,601	13,419	252	6,968	–	–
West Virginia	22,331	7,514	4,798	9,931	72	17	–	*
North Carolina	65,741	22,105	17,256	25,110	235	1,029	–	6
South Carolina	36,599	10,436	8,090	17,603	92	468	–	10
Georgia	52,906	14,867	15,597	21,946	267	82	145	–
Florida	102,442	49,474	36,812	12,598	386	2,959	75	136
South Atlantic	**402,665**	**148,562**	**117,079**	**122,976**	**1,660**	**11,523**	**626**	**238**
Kentucky	32,272	9,444	6,633	9,230	141	6,822	–	1
Tennessee	1,530	565	273	656	5	31	–	–
Alabama	36,090	11,332	7,711	16,881	162	–	–	4
Mississippi	14,812	5,117	4,211	5,107	101	274	–	2
East South Central	**84,704**	**26,459**	**18,828**	**31,875**	**408**	**7,127**	**–**	**7**
Arkansas	17,876	6,106	4,444	6,887	89	351	–	–
Louisiana	52,353	15,359	11,063	22,821	286	1,730	–	1,095
Oklahoma	28,291	9,865	7,853	8,637	134	1,803	–	–
Texas	182,440	57,411	47,136	72,982	791	4,118	–	1
West South Central	**280,961**	**88,740**	**70,496**	**111,328**	**1,299**	**8,001**	**–**	**1,096**
Montana	7,739	2,196	2,157	3,238	55	75	–	18
Idaho	15,072	4,537	4,147	6,362	25	2	–	*
Wyoming	8,234	1,029	1,156	6,007	20	7	–	16
Colorado	18,894	5,633	9,884	3,150	141	86	–	–
New Mexico	9,337	2,524	3,055	3,107	63	567	–	21
Arizona	20,603	7,744	7,051	5,550	95	174	–	(10)
Utah	11,776	3,153	3,153	4,884	44	542	–	*
Nevada	11,876	4,555	3,248	3,667	86	320	–	–
Mountain	**103,531**	**31,370**	**33,850**	**35,965**	**528**	**1,773**	**–**	**46**
Washington	23,534	11,289	7,582	4,560	87	*	–	16
Oregon	26,403	10,392	8,426	7,414	128	3	–	39
California	147,625	48,995	56,505	40,400	864	445	260	157
Pacific	**197,561**	**70,676**	**72,514**	**52,374**	**1,079**	**448**	**260**	**212**
Alaska	270	121	57	86	1	5	–	–
Hawaii	7,719	2,148	2,014	3,499	58	–	–	–
Alaska & Hawaii	**7,989**	**2,269**	**2,071**	**3,584**	**59**	**5**	**–**	**–**

Note: Total may not equal sum of components due to independent rounding.

p Preliminary.

** Less than five hundred thousand kilowatthours.*

( ) Denotes negative figure.

TABLE 42B

ENERGY SALES
INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND CLASS OF SERVICE
YEAR 1987r—KILOWATTHOURS IN MILLIONS

Division/State	Total to Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**1,879,558**	**618,496**	**544,616**	**658,417**	**10,395**	**43,195**	**2,239**	**2,200**
Maine	10,433	3,585	2,429	4,261	59	100	–	–
New Hampshire	7,400	2,876	1,620	2,812	36	56	–	–
Vermont	3,781	1,540	1,281	939	14	7	–	–
Massachusetts	36,886	12,695	15,558	7,971	339	323	–	–
Rhode Island	5,906	2,169	2,162	1,396	74	104	–	–
Connecticut	24,239	9,290	9,122	5,518	186	–	123	–
New England	**88,645**	**32,154**	**32,173**	**22,898**	**707**	**589**	**123**	**–**
New York	102,869	33,997	43,191	22,300	585	2,697	68	31
New Jersey	57,927	18,931	23,112	15,425	431	–	6	24
Pennsylvania	104,502	34,024	25,460	43,606	525	99	719	68
Middle Atlantic	**265,297**	**86,952**	**91,762**	**81,331**	**1,541**	**2,796**	**793**	**123**
Ohio	121,277	32,184	25,739	59,289	632	3,371	46	16
Indiana	52,897	15,603	12,783	24,031	272	161	11	36
Illinois	98,125	28,332	26,177	36,482	705	6,022	406	1
Michigan	69,904	21,538	16,420	30,875	415	602	–	54
Wisconsin	38,324	12,251	10,517	14,934	356	229	–	37
East North Central	**380,527**	**109,909**	**91,636**	**165,610**	**2,380**	**10,385**	**464**	**144**
Minnesota	29,989	7,245	4,509	17,781	155	289	–	11
Iowa	20,780	6,478	4,967	8,819	172	344	–	1
Missouri	36,321	13,299	13,726	8,853	211	299	–	2
North Dakota	3,455	1,439	765	1,084	48	116	–	3
South Dakota	3,073	1,132	1,059	821	30	31	–	*
Nebraska	–	–	–	–	–	–	–	–
Kansas	17,606	6,036	6,087	5,318	144	21	–	1
West North Central	**111,223**	**35,558**	**31,113**	**42,676**	**759**	**1,099**	**–**	**17**
Delaware	5,679	1,691	1,685	2,272	28	–	–	3
Maryland	42,435	15,779	9,683	16,479	225	–	193	76
District of Columbia	9,007	1,410	4,580	2,708	94	–	215	–
Virginia	59,333	22,865	16,489	12,994	247	6,738	–	–
West Virginia	20,953	7,172	4,602	9,082	78	20	–	–
North Carolina	63,784	21,672	16,406	24,456	227	1,017	–	6
South Carolina	36,403	10,367	7,810	17,678	91	446	–	10
Georgia	51,218	14,720	14,556	21,461	265	80	135	–
Florida	96,124	46,612	34,362	11,814	379	2,762	78	117
South Atlantic	**384,937**	**142,288**	**110,173**	**118,944**	**1,633**	**11,063**	**622**	**213**
Kentucky	31,270	9,001	6,266	8,763	139	7,101	–	1
Tennessee	1,425	538	262	591	4	29	–	–
Alabama	34,755	11,149	7,477	15,969	156	–	–	4
Mississippi	14,374	5,024	3,996	4,945	99	311	–	–
East South Central	**81,824**	**25,711**	**18,000**	**30,268**	**399**	**7,441**	**–**	**4**
Arkansas	17,238	6,009	4,351	6,472	87	320	–	–
Louisiana	51,811	15,310	10,688	22,342	290	1,789	–	1,391
Oklahoma	27,312	9,581	7,607	8,309	136	1,679	–	–
Texas	176,413	55,309	45,659	70,717	781	3,946	–	1
West South Central	**272,773**	**86,209**	**68,305**	**107,840**	**1,295**	**7,733**	**–**	**1,391**
Montana	7,449	2,102	2,060	3,146	57	67	–	17
Idaho	14,235	4,342	3,936	5,930	25	2	–	–
Wyoming	7,908	1,000	1,120	5,736	20	8	–	23
Colorado	18,062	5,458	8,894	3,480	138	92	–	–
New Mexico	8,879	2,444	2,926	2,860	61	555	–	33
Arizona	19,443	7,296	6,805	5,033	95	164	–	51
Utah	10,787	3,009	2,958	4,225	44	550	–	*
Nevada	11,143	4,281	3,071	3,425	84	282	–	–
Mountain	**97,905**	**29,932**	**31,770**	**33,835**	**524**	**1,720**	**–**	**125**
Washington	22,367	10,685	7,308	4,281	85	*	–	7
Oregon	25,587	9,943	8,253	7,217	129	5	–	38
California	140,897	46,952	52,183	40,146	884	358	239	136
Pacific	**188,851**	**67,580**	**67,745**	**51,644**	**1,098**	**364**	**239**	**181**
Alaska	277	132	54	85	1	5	–	–
Hawaii	7,298	2,070	1,884	3,286	58	–	–	–
Alaska & Hawaii	**7,575**	**2,202**	**1,938**	**3,371**	**59**	**5**	**–**	**–**

Note: Total may not equal sum of components due to independent rounding.
r Revised.
** Less than five hundred thousand kilowatthours.*

TABLE 43

ENERGY SALES
TOTAL ELECTRIC UTILITY INDUSTRY

BY QUARTER AND CLASS OF SERVICE
1983-1988 – KILOWATTHOURS IN MILLIONS

Year – Quarter	Total to Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-depart-mental
YEAR – 1988p								
First Quarter	638,587	238,897	166,294	211,526	3,710	15,884	1,335	942
Second Quarter	590,006	185,882	164,387	218,556	3,443	15,484	1,210	1,043
Third Quarter	706,542	256,489	197,372	229,661	3,503	17,080	1,270	1,168
Fourth Quarter	614,775	203,879	167,127	221,204	3,881	16,150	1,294	1,239
Total	**2,549,909**	**885,146**	**695,181**	**880,947**	**14,537**	**64,598**	**5,110**	**4,392**
YEAR – 1987r								
First Quarter	596,074	222,024	154,347	198,342	3,736	15,174	1,317	1,132
Second Quarter	577,204	186,784	158,928	210,166	3,462	15,473	1,156	1,235
Third Quarter	674,355	243,735	186,437	221,563	3,427	16,885	1,185	1,124
Fourth Quarter	587,849	193,914	158,733	213,638	3,760	15,515	1,240	1,048
Total	**2,435,483**	**846,457**	**658,445**	**843,709**	**14,386**	**63,047**	**4,898**	**4,541**
YEAR – 1986								
First Quarter	589,664	219,324	149,107	199,433	3,887	15,378	1,255	1,280
Second Quarter	550,583	175,028	150,349	204,504	3,468	14,940	1,101	1,193
Third Quarter	638,346	229,897	175,803	210,250	3,639	16,228	1,129	1,399
Fourth Quarter	576,151	195,766	153,706	204,795	4,043	15,341	1,205	1,294
Total	**2,354,744**	**820,015**	**628,965**	**818,982**	**15,037**	**61,888**	**4,689**	**5,167**
YEAR – 1985								
First Quarter	586,992	219,633	144,927	200,734	3,835	15,249	1,261	1,354
Second Quarter	542,301	169,611	144,271	206,463	3,531	15,946	1,113	1,368
Third Quarter	617,375	216,280	168,097	211,362	3,411	15,739	1,127	1,358
Fourth Quarter	559,214	187,351	148,570	201,742	3,868	15,232	1,202	1,249
Total	**2,305,882**	**792,875**	**605,865**	**820,301**	**14,644**	**62,165**	**4,704**	**5,328**
YEAR – 1984								
First Quarter	583,026	217,917	140,257	203,628	3,727	14,960	1,215	1,321
Second Quarter	539,133	170,463	136,287	211,638	3,482	14,703	1,062	1,498
Third Quarter	611,181	213,027	161,409	215,244	3,360	15,465	1,083	1,594
Fourth Quarter	547,244	181,201	140,130	204,976	3,635	14,765	1,124	1,413
Total	**2,280,585**	**782,608**	**578,083**	**835,486**	**14,205**	**59,894**	**4,483**	**5,826**
YEAR – 1983								
First Quarter	525,257	193,693	128,741	182,262	3,706	14,282	1,145	1,427
Second Quarter	494,569	159,651	126,364	190,063	3,186	13,050	991	1,262
Third Quarter	606,460	221,371	157,015	208,157	3,349	14,044	1,052	1,471
Fourth Quarter	533,502	175,578	133,481	202,503	3,702	15,890	1,112	1,237
Total	**2,159,787**	**750,293**	**545,601**	**782,984**	**13,944**	**57,267**	**4,300**	**5,398**

Note: Total may not equal sum of components due to independent rounding.
p Preliminary. r Revised.

TABLE 44

ENERGY SALES
INVESTOR-OWNED ELECTRIC UTILITIES

BY QUARTER AND CLASS OF SERVICE
1983–1988 – KILOWATTHOURS IN MILLIONS

Year – Quarter	Total to Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
YEAR – 1988p								
First Quarter	490,804	173,888	137,620	164,675	2,728	10,930	604	360
Second Quarter	457,149	136,686	136,078	170,382	2,422	10,595	573	414
Third Quarter	545,705	187,967	163,805	178,472	2,474	11,861	624	502
Fourth Quarter	475,462	150,016	138,118	172,315	2,774	11,028	599	611
Total	**1,969,120**	**648,557**	**575,621**	**685,845**	**10,397**	**44,414**	**2,399**	**1,887**
YEAR – 1987r								
First Quarter	458,492	161,532	127,538	155,143	2,757	10,346	582	595
Second Quarter	446,568	136,661	131,473	164,351	2,399	10,523	539	621
Third Quarter	520,148	177,744	154,383	172,644	2,463	11,831	555	528
Fourth Quarter	454,350	142,560	131,221	166,279	2,776	10,495	563	456
Total	**1,879,558**	**618,496**	**544,616**	**658,417**	**10,395**	**43,195**	**2,239**	**2,200**
YEAR – 1986								
First Quarter	451,114	158,240	122,675	155,507	2,768	10,634	592	699
Second Quarter	424,612	127,239	124,271	159,089	2,356	10,490	544	624
Third Quarter	488,815	165,646	145,051	162,995	2,494	11,330	551	749
Fourth Quarter	443,519	142,894	126,642	159,526	2,729	10,495	575	657
Total	**1,808,061**	**594,019**	**518,639**	**637,116**	**10,348**	**42,948**	**2,261**	**2,729**
YEAR – 1985								
First Quarter	446,638	157,530	119,021	155,471	2,766	10,547	594	710
Second Quarter	417,274	123,040	118,800	160,551	2,357	11,314	533	680
Third Quarter	474,423	156,403	138,465	164,672	2,485	11,140	548	710
Fourth Quarter	430,594	136,279	122,035	157,819	2,731	10,564	578	588
Total	**1,768,929**	**573,253**	**498,320**	**638,513**	**10,339**	**43,565**	**2,252**	**2,687**
YEAR – 1984								
First Quarter	440,739	155,856	114,878	155,737	2,762	10,221	542	744
Second Quarter	411,234	123,517	111,747	162,385	2,361	9,935	485	803
Third Quarter	466,477	153,472	132,327	166,206	2,506	10,596	499	873
Fourth Quarter	418,576	130,859	114,518	159,138	2,749	10,009	518	784
Total	**1,737,027**	**563,703**	**473,470**	**643,466**	**10,379**	**40,760**	**2,045**	**3,204**
YEAR – 1983								
First Quarter	396,596	140,291	104,692	138,549	2,820	9,042	500	702
Second Quarter	378,570	116,701	103,168	146,675	2,369	8,511	434	711
Third Quarter	459,118	160,843	128,304	157,168	2,498	9,029	490	786
Fourth Quarter	406,092	128,246	109,136	155,014	2,757	9,814	505	621
Total	**1,640,375**	**546,080**	**445,300**	**597,405**	**10,445**	**36,396**	**1,929**	**2,820**

Note: Total may not equal sum of components due to independent rounding.
p Preliminary. r Revised.

TABLE 45

AVERAGE ANNUAL KWH USE PER CUSTOMER

TOTAL ELECTRIC UTILITY INDUSTRY

Year	Residential	Commercial	Total Ultimate Customers
1988p	**9,495**	**60,263**	**24,144**
1987r	9,236	58,409	23,472
1986	9,090	57,161	23,071
1985	8,906	56,109	22,903
1984	8,978	55,205	23,152
1983	8,814	53,822	22,479
1982	8,743	52,260	22,197
1981	8,825	53,402	23,026
1980	9,025	54,538	23,167
1979	8,843	53,197	23,481
1978	8,849	53,085	23,315
1977	8,693	52,892	23,052
1976	8,360	50,733	22,361
1975	8,176	48,964	21,417
1974	7,907	46,557	21,448
1973	8,079	47,580	21,955
1972	7,691	44,496	20,964
1971	7,380	41,943	19,956
1970	7,066	39,952	19,380***
1969	6,571	36,950	18,563
1968	6,057	34,637	17,445

INVESTOR-OWNED ELECTRIC UTILITIES

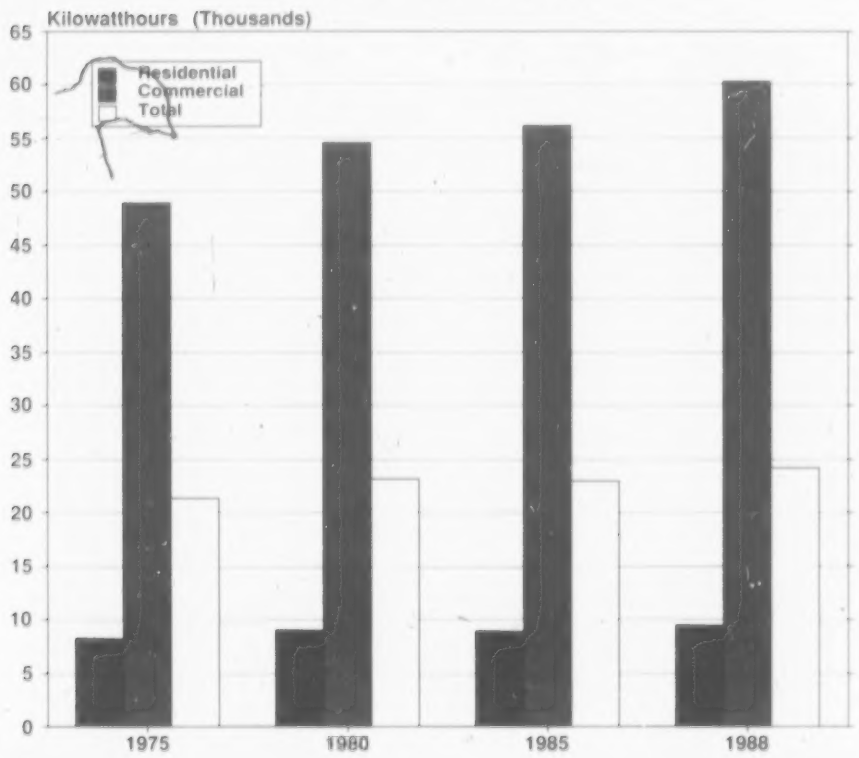
Year	Residential	Commercial	Total Ultimate Customers
1988p	**9,082**	**64,746**	**24,325**
1987r	8,816	62,801	23,653
1986	8,627	61,462	23,201
1985	8,487	60,517	23,149
1984	8,500	59,270	23,173
1983	8,379	57,003	22,293
1982	8,261	56,379	21,940
1981	8,311	55,742	22,753
1980	8,539	55,210	22,949
1979	8,360	54,594	23,287
1978	8,430	54,653	23,197
1977	8,279	54,520	22,938
1976	7,969	52,560	22,263
1975	7,855	50,966	21,305
1974	7,574	48,426	21,343
1973	7,769	49,550	21,989
1972	7,413	46,565	21,002
1971	7,062	43,596	19,917
1970	6,720	41,272	19,167
1969	6,253	38,025	18,305
1968	5,727	35,549	17,159

Based on sales data in Tables 38 and 39, and average number of customers per year. p Preliminary. r Revised.

CHART VI-D

AVERAGE KILOWATTHOURS USED

TOTAL ELECTRIC UTILITY INDUSTRY



Based on Table 45, as shown above.

CUSTOMERS

SECTION VII

TABLE 47

ULTIMATE CUSTOMERS
TOTAL ELECTRIC UTILITY INDUSTRY

BY YEAR AND CLASS OF SERVICE AT DECEMBER 31st

Year	Total Ultimate Customers	Residential	Commercial*	Industrial*	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
1988p	**106,349,848**	**93,867,730**	**11,629,956**	**492,822**	**169,736**	**187,762**	**28**	**1,814**
1987r	104,624,233	92,399,323	11,386,008	487,572	165,188	184,369	27	1,746
1986	102,952,793	90,994,586	11,114,300	498,254	161,377	182,257	28	1,991
1985	101,579,271	89,819,726	10,920,861	499,728	158,307	178,759	28	1,862
1984	99,371,026	87,938,995	10,565,239	525,692	139,703	199,393	29	1,975
1983	96,985,531	85,842,195	10,266,449	500,215	153,659	219,879	31	3,103
1982	95,250,268	84,371,779	9,976,274	533,635	148,678	216,975	31	2,896
1981	94,011,299	83,304,355	9,847,260	516,996	141,051	197,187	31	4,419
1980	92,653,47*	82,153,162	9,698,809	484,652	142,724	168,120	30	5,974
1979	89,771,965	79,620,180	9,386,572	477,874	124,228	158,098	30	5,003
1978	87,667,954	77,775,667	9,148,399	464,637	121,899	152,439	30	4,883
1977	85,590,212	75,923,145	8,943,732	448,009	120,594	149,934	28	4,770
1976	83,613,161	74,161,846	8,750,949	427,403	119,130	148,867	28	4,938
1975	81,844,890	72,570,187	8,591,108	414,665	116,555	147,387	29	4,959
1974	80,102,390	70,949,607	8,472,817	422,736	112,477	139,480	29	5,244
1973	78,461,251	69,438,429	8,361,847	413,383	108,787	133,619	46	5,140
1972	76,150,204	67,314,000	8,200,033	369,952	103,874	157,461	50	4,834
1971	74,265,071	65,650,046	8,002,572	355,967	96,252	155,414	48	4,772
1970	72,484,978	64,017,662	7,865,073	352,993	92,052	152,706	47	4,445
1969	70,929,138	62,598,910	7,744,851	348,648	86,678	145,071	49	4,931
1968	69,716,013	61,439,030	7,706,779	333,650	86,023	146,257*	64	4,210

*Commercial and Industrial are not wholly comparable on a year-to-year basis due to changes from one classification to another.
p Preliminary. r Revised.

TABLE 48

ULTIMATE CUSTOMERS
INVESTOR-OWNED ELECTRIC UTILITIES

BY YEAR AND CLASS OF SERVICE AT DECEMBER 31st

Year	Total Ultimate Customers	Residential	Commercial*	Industrial*	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
1988p	**81,677,307**	**72,039,630**	**8,985,634**	**367,865**	**131,744**	**151,922**	**22**	**490**
1987r	80,232,499	70,826,711	8,768,207	360,468	127,644	149,022	21	426
1986	78,717,500	69,548,070	8,535,188	364,294	123,525	145,957	22	444
1985	77,203,821	68,234,704	8,340,862	363,757	121,395	142,621	22	460
1984	75,709,055	66,987,481	8,066,025	396,304	117,874	140,907	23	441
1983	74,247,765	65,718,130	7,886,857	387,875	115,170	139,233	23	477
1982	72,979,298	64,648,932	7,702,142	378,016	113,251	136,484	23	450
1981	72,037,264	63,820,699	7,579,344	389,646	112,061	135,049	23	442
1980	70,996,563	62,902,588	7,459,959	375,540	123,589	134,595	23	269
1979	69,581,540	61,676,402	7,290,125	372,407	108,149	134,171	23	263
1978	67,922,975	60,216,110	7,106,705	364,123	106,286	129,496	23	232
1977	66,294,706	58,770,646	6,942,201	349,563	105,442	126,611	21	222
1976	64,896,400	57,530,599	6,805,345	329,522	103,754	126,674	22	484
1975	63,650,468	56,409,122	6,690,374	322,429	101,937	126,100	23	483
1974	62,667,061	55,499,145	6,624,061	326,409	97,438	119,531	23	454
1973	61,435,986	54,370,297	6,531,953	324,236	94,682	114,315	24	479
1972	59,804,431	52,868,920	6,422,032	284,733	90,206	138,052	25	463
1971	58,204,164	51,415,155	6,294,907	274,329	86,714	132,573	25	461
1970	56,888,819	50,210,348	6,194,383	270,132	83,443	130,036	24	453
1969	55,714,225	49,134,168	6,111,945	265,331	78,903	123,399	25	454
1968	54,630,477	48,140,270	6,078,790	258,848	78,950	123,136	40	443

** Commercial and Industrial are not wholly comparable on a year-to-year basis due to changes from one classification to another.*
p Preliminary. r Revised.

TABLE 49

CUSTOMERS IN PERCENT OF TOTAL
TOTAL ELECTRIC UTILITY INDUSTRY

BY YEAR AND CLASS OF SERVICE AT DECEMBER 31st

Year	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways*	Inter-departmental*
1988p	**88.3%**	**10.8%**	**0.5%**	**0.2%**	**0.2%**	**0.0%**	**0.0%**
1987r	88.3	10.8	0.5	0.2	0.2	0.0	0.0
1986	88.3	10.8	0.5	0.2	0.2	0.0	0.0
1985	88.3	10.8	0.5	0.2	0.2	0.0	0.0
1984	88.5	10.6	0.5	0.2	0.2	0.0	0.0
1983	88.5	10.6	0.5	0.2	0.2	0.0	0.0
1982	88.6	10.5	0.6	0.1	0.2	0.0	0.0
1981	88.6	10.5	0.5	0.2	0.2	0.0	0.0
1980	88.7	10.5	0.5	0.1	0.2	0.0	0.0
1979	88.7	10.5	0.5	0.1	0.2	0.0	0.0
1978	88.7	10.5	0.5	0.1	0.2	0.0	0.0
1977	88.7	10.5	0.5	0.1	0.2	0.0	0.0
1976	88.7	10.5	0.5	0.1	0.2	0.0	0.0
1975	88.7	10.5	0.5	0.1	0.2	0.0	0.0
1974	88.6	10.6	0.5	0.1	0.2	0.0	0.0
1973	88.5	10.7	0.5	0.1	0.2	0.0	0.0
1972	88.4	10.8	0.5	0.1	0.2	0.0	0.0
1971	88.4	10.8	0.5	0.1	0.2	0.0	0.0
1970	88.3	10.9	0.5	0.1	0.2	0.0	0.0
1969	88.3	10.9	0.5	0.1	0.2	0.0	0.0
1968	88.1	11.1	0.5	0.1	0.2	0.0	0.0

** Less than one-tenth of one percent. p Preliminary. r Revised.*
Based on customer data in Table 47.

TABLE 50A

ULTIMATE CUSTOMERS
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND CLASS OF SERVICE AT DECEMBER 31, 1988p

Division/State	Total Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**106,349,848**	**93,867,730**	**11,629,956**	**492,822**	**169,736**	**187,762**	**28**	**1,814**
Maine	619,514	551,132	64,369	2,830	1,071	109	–	3
New Hampshire	544,991	473,583	67,939	1,567	1,452	450	–	–
Vermont	285,647	249,934	33,868	1,011	305	527	–	2
Massachusetts	2,549,550	2,261,499	267,453	12,902	4,983	2,712	1	–
Rhode Island	424,977	378,889	42,529	2,681	848	30	–	–
Connecticut	1,437,730	1,305,020	123,846	4,755	4,064	38	1	6
New England	**5,862,409**	**5,220,057**	**600,004**	**25,746**	**12,723**	**3,866**	**2**	**11**
New York	7,004,139	6,170,539	798,050	9,998	9,769	15,776	5	2
New Jersey	3,245,066	2,851,183	373,126	12,408	8,339	8	1	1
Pennsylvania	5,109,425	4,560,343	511,658	29,506	7,199	714	4	1
Middle Atlantic	**15,358,630**	**13,582,065**	**1,682,834**	**51,912**	**25,307**	**16,498**	**10**	**4**
Ohio	4,614,658	4,139,151	429,674	29,504	6,344	9,967	2	16
Indiana	2,377,598	2,121,727	236,347	14,485	3,680	1,356	1	2
Illinois	4,723,465	4,273,976	427,934	6,717	2,946	11,887	2	3
Michigan	3,985,650	3,593,792	372,292	13,756	3,696	2,111	–	3
Wisconsin	2,186,050	1,942,518	233,534	4,824	4,263	791	–	120
East North Central	**17,887,421**	**16,071,164**	**1,699,781**	**69,286**	**20,929**	**26,112**	**5**	**144**
Minnesota	1,905,844	1,709,362	179,771	8,213	3,237	5,259	–	2
Iowa	1,289,959	1,122,980	155,110	4,312	1,494	6,061	–	2
Missouri	2,329,378	2,065,171	243,065	11,440	3,737	5,914	1	50
North Dakota	308,848	261,444	42,823	2,786	725	1,067	–	3
South Dakota	322,756	278,802	40,771	991	1,029	1,162	–	1
Nebraska	775,296	642,019	124,720	3,371	1,050	4,133	–	3
Kansas	1,170,820	1,001,070	156,763	9,894	2,285	807	–	1
West North Central	**8,102,901**	**7,080,848**	**943,023**	**41,007**	**13,557**	**24,403**	**1**	**62**
Delaware	299,064	269,062	28,780	701	508	12	–	1
Maryland	1,857,928	1,673,295	177,856	5,851	900	23	2	1
District of Columbia	215,180	188,760	26,216	167	36	–	1	–
Virginia	2,515,726	2,240,527	243,500	4,695	2,052	24,952	–	–
West Virginia	849,083	744,366	92,749	10,514	1,181	268	–	5
North Carolina	3,094,809	2,702,175	366,461	13,805	9,837	2,504	–	27
South Carolina	1,569,117	1,367,355	191,511	4,332	3,391	2,513	–	15
Georgia	2,845,540	2,542,231	275,025	19,257	6,606	2,420	1	–
Florida	6,172,875	5,464,781	662,832	25,925	6,178	13,155	1	3
South Atlantic	**19,419,322**	**17,192,552**	**2,064,930**	**85,247**	**30,689**	**45,847**	**5**	**52**
Kentucky	1,638,980	1,447,740	170,686	7,295	5,015	8,235	–	9
Tennessee	2,156,033	1,909,667	226,691	17,022	1,000	1,634	–	19
Alabama	1,824,229	1,603,376	208,411	8,810	2,352	1,269	–	11
Mississippi	1,103,667	961,996	131,672	5,260	920	3,817	–	2
East South Central	**6,722,909**	**5,922,779**	**737,460**	**38,387**	**9,287**	**14,955**	**–**	**41**
Arkansas	1,128,082	987,299	117,037	19,191	1,024	3,531	–	–
Louisiana	1,767,738	1,555,694	184,109	15,440	2,453	10,040	–	2
Oklahoma	1,535,714	1,327,283	181,981	15,384	1,249	9,817	–	–
Texas	7,110,540	6,180,056	840,038	59,563	3,899	26,840	–	144
West South Central	**11,542,074**	**10,050,332**	**1,323,165**	**109,578**	**8,625**	**50,228**	**–**	**146**
Montana	432,285	361,501	62,198	4,878	3,280	156	–	272
Idaho	460,470	388,930	69,021	1,926	526	66	–	1
Wyoming	240,866	197,213	40,220	2,776	419	236	–	2
Colorado	1,559,570	1,361,610	195,292	1,315	916	437	–	–
New Mexico	654,398	558,751	89,537	4,747	358	954	–	51
Arizona	1,554,750	1,380,688	158,614	4,669	8,534	2,226	1	18
Utah	614,257	547,271	58,680	6,080	1,899	319	–	8
Nevada	502,900	435,814	66,003	600	340	142	–	1
Mountain	**6,019,496**	**5,231,778**	**739,565**	**26,991**	**16,272**	**4,536**	**1**	**353**
Washington	2,089,836	1,855,971	223,765	6,290	3,582	181	1	46
Oregon	1,232,000	1,073,059	155,287	2,453	1,133	56	–	12
California	11,541,045	10,095,164	1,384,508	34,776	25,338	315	3	941
Pacific	**14,862,881**	**13,024,194**	**1,763,560**	**43,519**	**30,053**	**552**	**4**	**999**
Alaska	216,918	185,586	29,301	488	776	765	–	2
Hawaii	354,887	306,375	46,333	661	1,518	–	–	–
Alaska & Hawaii	**571,805**	**491,961**	**75,634**	**1,149**	**2,294**	**765**	**–**	**2**

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TABLE 50B

ULTIMATE CUSTOMERS
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND CLASS OF SERVICE
AT DECEMBER 31, 1987r

Division/State	Total Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**104,624,233**	**92,399,323**	**11,386,008**	**487,572**	**165,188**	**184,369**	**27**	**1,746**
Maine	605,849	540,001	62,365	2,307	1,067	106	–	3
New Hampshire	527,671	460,117	64,114	1,511	1,485	444	–	–
Vermont	277,235	242,879	32,521	1,008	303	518	–	6
Massachusetts	2,495,246	2,216,577	258,142	13,043	4,841	2,643	–	–
Rhode Island	415,880	371,211	41,125	2,689	826	29	–	–
Connecticut	1,390,636	1,265,227	116,724	4,785	3,863	30	1	6
New England	**5,712,517**	**5,096,012**	**574,991**	**25,343**	**12,385**	**3,770**	**1**	**15**
New York	6,919,498	6,106,118	777,934	9,968	9,658	15,813	5	2
New Jersey	3,187,899	2,805,397	362,541	12,477	7,474	8	1	1
Pennsylvania	5,034,948	4,498,160	499,491	29,365	7,207	720	4	1
Middle Atlantic	**15,142,345**	**13,409,675**	**1,639,966**	**51,810**	**24,339**	**16,541**	**10**	**4**
Ohio	4,562,233	4,095,048	421,788	29,069	6,264	10,044	2	18
Indiana	2,345,667	2,094,327	232,323	14,089	3,554	1,371	1	2
Illinois	4,689,517	4,246,132	421,974	6,480	2,977	11,949	2	3
Michigan	3,930,739	3,547,566	363,728	13,653	3,668	2,121	–	3
Wisconsin	2,158,196	1,917,537	230,856	4,713	4,188	782	–	120
East North Central	**17,686,352**	**15,900,610**	**1,670,669**	**68,004**	**20,651**	**26,267**	**5**	**146**
Minnesota	1,875,477	1,681,229	177,895	7,947	3,218	5,186	–	2
Iowa	1,285,037	1,119,224	154,116	4,255	1,498	5,941	–	3
Missouri	2,293,208	2,034,441	237,984	11,382	3,657	5,693	1	50
North Dakota	307,282	260,284	42,511	2,722	702	1,060	–	3
South Dakota	319,909	276,643	40,495	967	836	967	–	1
Nebraska	767,898	635,332	124,175	3,201	1,040	4,147	–	3
Kansas	1,161,918	995,092	153,731	9,959	2,313	822	–	1
West North Central	**8,010,729**	**7,002,245**	**930,907**	**40,433**	**13,264**	**23,816**	**1**	**63**
Delaware	290,727	262,233	27,278	705	498	12	–	1
Maryland	1,809,384	1,632,071	170,761	5,651	875	23	2	1
District of Columbia	212,476	186,419	25,849	171	36	–	1	–
Virginia	2,441,357	2,176,909	234,049	4,528	1,951	23,920	–	–
West Virginia	838,657	736,251	90,526	10,417	1,161	302	–	–
North Carolina	3,014,814	2,634,220	355,180	13,373	9,524	2,491	–	26
South Carolina	1,536,279	1,341,627	184,507	4,226	3,381	2,525	–	13
Georgia	2,772,158	2,478,913	265,496	19,157	6,275	2,316	1	–
Florida	5,980,058	5,296,163	637,555	27,939	5,747	12,650	1	3
South Atlantic	**18,895,910**	**16,744,806**	**1,991,201**	**86,167**	**29,448**	**44,239**	**5**	**44**
Kentucky	1,612,782	1,425,423	167,115	7,353	4,834	8,048	–	9
Tennessee	2,172,687	1,921,699	230,831	17,440	1,052	1,646	–	19
Alabama	1,804,424	1,586,398	205,907	8,603	2,308	1,197	–	11
Mississippi	1,098,262	957,714	130,721	5,134	890	3,802	–	1
East South Central	**6,688,155**	**5,891,234**	**734,574**	**38,530**	**9,084**	**14,693**	**–**	**40**
Arkansas	1,108,222	970,635	114,577	18,590	1,004	3,416	–	–
Louisiana	1,793,234	1,580,542	184,740	15,813	2,365	9,772	–	2
Oklahoma	1,533,185	1,324,598	182,220	15,360	1,238	9,769	–	–
Texas	7,039,933	6,114,619	835,844	59,418	3,694	26,014	–	144
West South Central	**11,474,574**	**9,990,394**	**1,317,381**	**109,181**	**8,501**	**48,971**	**–**	**146**
Montana	406,295	340,913	59,306	2,515	3,172	152	–	237
Idaho	455,906	385,872	67,723	1,701	548	62	–	–
Wyoming	240,569	197,090	40,434	2,392	409	240	–	4
Colorado	1,546,842	1,350,541	193,563	1,351	891	496	–	–
New Mexico	641,897	547,604	88,271	4,713	313	944	–	52
Arizona	1,512,206	1,341,306	155,523	4,465	8,645	2,250	1	16
Utah	610,039	543,404	58,115	6,321	1,869	320	–	10
Nevada	473,835	411,187	61,561	615	344	127	–	1
Mountain	**5,887,589**	**5,117,917**	**724,496**	**24,073**	**16,191**	**4,591**	**1**	**320**
Washington	2,043,463	1,816,344	217,201	6,066	3,639	189	1	23
Oregon	1,241,897	1,079,466	158,897	2,254	1,142	126	–	12
California	11,275,767	9,864,191	1,351,475	34,519	24,255	393	3	931
Pacific	**14,561,127**	**12,760,001**	**1,727,573**	**42,839**	**29,036**	**708**	**4**	**966**
Alaska	217,849	186,671	29,074	533	796	773	–	2
Hawaii	347,086	299,758	45,176	659	1,493	–	–	–
Alaska & Hawaii	**564,935**	**486,429**	**74,250**	**1,192**	**2,289**	**773**	**–**	**2**

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TABLE 51A

ULTIMATE CUSTOMERS
INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND CLASS OF SERVICE AT DECEMBER 31, 1988p

Division/State	Total Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**81,677,307**	**72,039,630**	**8,985,634**	**367,865**	**131,744**	**151,922**	**22**	**490**
Maine	592,747	527,595	61,323	2,699	1,043	87	–	–
New Hampshire	477,436	414,055	59,990	1,517	1,434	440	–	–
Vermont	221,529	193,090	27,552	127	270	490	–	–
Massachusetts	2,233,907	1,980,470	238,068	8,020	4,936	2,412	1	–
Rhode Island	421,275	375,588	42,149	2,662	847	29	–	–
Connecticut	1,356,369	1,233,379	114,356	4,593	4,040	–	1	–
New England	**5,303,263**	**4,724,177**	**543,438**	**19,618**	**12,570**	**3,458**	**2**	**–**
New York	6,849,070	6,033,758	782,208	7,879	9,686	15,533	4	2
New Jersey	3,186,164	2,798,288	367,409	12,146	8,319	–	1	1
Pennsylvania	4,869,510	4,338,322	495,369	28,995	6,398	421	4	1
Middle Atlantic	**14,904,744**	**13,170,368**	**1,644,986**	**49,020**	**24,403**	**15,954**	**9**	**4**
Ohio	4,071,430	3,648,242	380,382	27,612	5,792	9,384	2	16
Indiana	1,829,242	1,620,192	194,062	11,149	2,934	902	1	2
Illinois	4,344,065	3,926,565	398,101	5,799	2,617	10,978	2	3
Michigan	3,538,689	3,190,312	331,462	12,418	2,948	1,546	–	3
Wisconsin	1,816,275	1,621,074	188,035	2,766	3,745	628	–	27
East North Central	**15,599,701**	**14,006,385**	**1,492,042**	**59,744**	**18,036**	**23,438**	**5**	**51**
Minnesota	1,157,388	1,021,922	124,097	6,242	2,128	2,997	–	2
Iowa	940,553	807,156	125,036	2,433	885	5,041	–	2
Missouri	1,569,280	1,379,051	176,653	7,852	2,182	3,503	–	39
North Dakota	197,124	165,656	28,853	1,652	396	565	–	2
South Dakota	173,856	146,428	26,077	448	388	514	–	1
Nebraska	–	–	–	–	–	–	–	–
Kansas	779,552	683,117	87,655	7,529	1,035	205	–	1
West North Central	**4,817,753**	**4,203,330**	**568,381**	**26,156**	**7,014**	**12,825**	**–**	**47**
Delaware	218,668	196,449	21,594	411	213	–	–	1
Maryland	1,715,122	1,543,391	165,426	5,500	802	–	2	1
District of Columbia	215,180	188,760	26,216	167	36	–	1	–
Virginia	2,125,459	1,888,610	207,896	3,423	1,896	23,634	–	–
West Virginia	840,950	737,195	91,846	10,458	1,181	265	–	5
North Carolina	2,105,953	1,803,773	282,611	10,640	7,345	1,569	–	15
South Carolina	957,600	817,240	132,778	3,501	2,418	1,648	–	15
Georgia	1,624,179	1,422,659	186,282	12,422	2,126	689	1	–
Florida	4,850,127	4,296,042	515,242	21,803	5,391	11,645	1	3
South Atlantic	**14,653,238**	**12,894,119**	**1,629,891**	**68,325**	**21,408**	**39,450**	**5**	**40**
Kentucky	954,130	823,134	114,446	4,366	4,515	7,668	–	1
Tennessee	37,715	33,533	3,888	138	120	36	–	–
Alabama	1,108,302	964,581	137,955	5,120	645	–	–	1
Mississippi	514,323	437,887	69,411	3,968	524	2,532	–	1
East South Central	**2,614,470**	**2,259,135**	**325,700**	**13,592**	**5,804**	**10,236**	**–**	**3**
Arkansas	699,807	601,959	77,304	18,069	524	1,951	–	–
Louisiana	1,383,574	1,214,475	144,255	12,907	2,296	9,639	–	2
Oklahoma	1,040,856	902,291	115,765	13,032	1,094	8,674	–	–
Texas	5,211,490	4,527,831	604,352	52,118	3,299	23,889	–	1
West South Central	**8,335,727**	**7,246,556**	**941,676**	**96,126**	**7,213**	**44,153**	**–**	**3**
Montana	322,928	268,739	46,085	4,819	2,916	126	–	243
Idaho	384,398	323,285	58,962	1,625	478	47	–	1
Wyoming	153,551	128,392	22,620	2,309	167	61	–	2
Colorado	998,942	885,863	112,235	174	481	189	–	–
New Mexico	462,946	404,094	53,486	4,203	255	867	–	41
Arizona	886,410	782,983	97,998	3,844	706	878	–	1
Utah	474,672	426,509	40,523	5,866	1,724	47	–	3
Nevada	475,466	413,545	61,233	574	96	18	–	–
Mountain	**4,159,313**	**3,633,410**	**493,142**	**23,414**	**6,823**	**2,233**	**–**	**291**
Washington	966,092	859,876	101,151	3,594	1,444	1	–	26
Oregon	668,996	843,213	122,918	1,873	988	1	–	3
California	8,984,209	7,880,227	1,074,119	5,371	24,436	33	1	22
Pacific	**10,919,297**	**9,583,316**	**1,298,188**	**10,838**	**26,868**	**35**	**1**	**51**
Alaska	14,914	12,459	1,857	371	87	140	–	–
Hawaii	354,887	306,375	46,333	661	1,518	–	–	–
Alaska & Hawaii	**369,801**	**318,834**	**48,190**	**1,032**	**1,605**	**140**	**–**	**–**

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TABLE 51B

ULTIMATE CUSTOMERS
INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND CLASS OF SERVICE
AT DECEMBER 31, 1987r

Division/State	Total Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**80,232,499**	**70,826,711**	**8,768,207**	**360,468**	**127,644**	**149,022**	**21**	**426**
Maine	579,748	517,039	59,414	2,166	1,042	87	–	–
New Hampshire	462,272	402,380	56,520	1,467	1,467	438	–	–
Vermont	215,081	187,904	26,299	133	270	475	–	–
Massachusetts	2,180,808	1,935,994	229,653	8,033	4,784	2,344	–	–
Rhode Island	412,319	368,056	40,740	2,670	825	28	–	–
Connecticut	1,330,639	1,212,222	109,922	4,652	3,842	–	1	–
New England	**5,180,867**	**4,623,595**	**522,548**	**19,121**	**12,230**	**3,372**	**1**	**–**
New York	6,765,079	5,969,918	762,166	7,842	9,576	15,571	4	2
New Jersey	3,129,610	2,753,044	356,896	12,214	7,454	–	1	1
Pennsylvania	4,797,865	4,278,748	483,390	28,884	6,411	427	4	1
Middle Atlantic	**14,692,554**	**13,001,710**	**1,602,452**	**48,940**	**23,441**	**15,998**	**9**	**4**
Ohio	4,024,520	3,609,174	372,959	27,194	5,712	9,461	2	18
Indiana	1,803,884	1,599,041	190,411	10,707	2,806	916	1	2
Illinois	4,296,946	3,887,181	390,728	5,558	2,605	10,869	2	3
Michigan	3,491,094	3,150,640	323,664	12,301	2,926	1,560	–	3
Wisconsin	1,791,063	1,598,497	185,600	2,623	3,692	624	–	27
East North Central	**15,407,507**	**13,844,533**	**1,463,362**	**58,383**	**17,741**	**23,430**	**5**	**53**
Minnesota	1,139,427	1,005,999	122,318	5,976	2,152	2,980	–	2
Iowa	935,950	803,601	124,141	2,385	891	4,929	–	3
Missouri	1,544,620	1,358,952	172,253	7,841	2,157	3,378	–	39
North Dakota	196,639	165,408	28,650	1,598	394	587	–	2
South Dakota	172,217	145,096	25,803	423	380	514	–	1
Nebraska	–	–	–	–	–	–	–	–
Kansas	770,755	676,905	85,040	7,578	1,026	205	–	1
West North Central	**4,759,608**	**4,155,961**	**558,205**	**25,801**	**7,000**	**12,593**	**–**	**48**
Delaware	212,176	191,121	20,435	415	204	–	–	1
Maryland	1,670,621	1,505,790	158,749	5,299	780	–	2	1
District of Columbia	212,476	186,419	25,849	171	36	–	1	–
Virginia	2,063,080	1,835,959	199,345	3,375	1,797	22,604	–	–
West Virginia	830,570	729,117	89,632	10,361	1,161	299	–	–
North Carolina	2,045,989	1,754,574	272,407	10,345	7,078	1,571	–	14
South Carolina	938,006	801,703	128,894	3,419	2,359	1,618	–	13
Georgia	1,691,630	1,395,815	180,857	12,343	1,964	650	1	–
Florida	4,688,900	4,154,819	495,780	22,107	4,989	11,201	1	3
South Atlantic	**14,253,448**	**12,555,317**	**1,571,948**	**67,835**	**20,368**	**37,943**	**5**	**32**
Kentucky	935,885	808,892	110,650	4,421	4,367	7,554	–	1
Tennessee	37,142	33,152	3,703	133	119	35	–	–
Alabama	1,090,219	950,101	134,533	4,955	629	–	–	1
Mississippi	510,178	434,850	68,437	3,863	496	2,532	–	–
East South Central	**2,573,424**	**2,226,995**	**317,323**	**13,372**	**5,611**	**10,121**	**–**	**2**
Arkansas	686,506	591,204	75,444	17,473	514	1,871	–	–
Louisiana	1,382,958	1,214,066	144,082	13,257	2,202	9,349	–	2
Oklahoma	1,040,055	901,666	115,655	12,987	1,087	8,658	–	–
Texas	5,155,676	4,476,787	600,366	52,066	3,306	23,150	–	1
West South Central	**8,265,195**	**7,183,725**	**935,547**	**95,783**	**7,109**	**43,028**	**–**	**3**
Montana	297,824	249,112	43,102	2,461	2,817	123	–	209
Idaho	380,391	320,738	57,709	1,399	502	43	–	–
Wyoming	153,409	128,341	22,916	1,922	158	68	–	4
Colorado	992,286	880,299	111,107	166	463	251	–	–
New Mexico	452,949	395,405	52,273	4,173	204	852	–	42
Arizona	861,556	760,295	96,002	3,638	714	906	–	1
Utah	470,669	422,807	39,996	6,110	1,704	49	–	3
Nevada	447,474	389,722	57,090	544	101	17	–	–
Mountain	**4,056,558**	**3,546,719**	**480,195**	**20,413**	**6,663**	**2,309**	**–**	**259**
Washington	941,360	838,872	97,783	3,209	1,494	1	–	1
Oregon	980,676	851,656	126,283	1,657	1,005	73	–	3
California	8,760,431	7,686,417	1,045,674	4,881	23,404	33	1	21
Pacific	**10,682,467**	**9,376,944**	**1,269,740**	**9,747**	**25,903**	**107**	**1**	**25**
Alaska	13,785	11,454	1,711	414	85	121	–	–
Hawaii	347,086	299,758	45,176	659	1,493	–	–	–
Alaska & Hawaii	**360,871**	**311,212**	**46,887**	**1,073**	**1,578**	**121**	**–**	**–**

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TABLE 52A

AVERAGE NUMBER OF CUSTOMERS TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND CERTAIN CLASS OF SERVICE—YEAR 1988p

Division/State	Total Ultimate Customers	Residential	Commercial	Industrial
Total United States	**105,613,888**	**93,226,287**	**11,535,695**	**495,585**
Maine	612,720	545,508	63,498	2,533
New Hampshire	539,500	469,548	66,479	1,539
Vermont	282,829	247,722	33,265	1,013
Massachusetts	2,535,987	2,250,334	265,106	12,944
Rhode Island	420,481	375,118	41,808	2,683
Connecticut	1,425,046	1,294,473	121,774	4,772
New England	**5,816,563**	**5,182,703**	**591,930**	**25,484**
New York	6,967,343	6,142,433	789,446	9,972
New Jersey	3,222,774	2,833,594	368,674	12,449
Pennsylvania	5,079,054	4,535,067	506,616	29,430
Middle Atlantic	**15,269,171**	**13,511,094**	**1,664,736**	**51,851**
Ohio	4,588,028	4,115,368	426,400	29,286
Indiana	2,364,215	2,110,337	234,177	14,408
Illinois	4,702,316	4,256,314	424,638	6,616
Michigan	3,960,615	3,572,609	368,496	13,701
Wisconsin	2,171,558	1,928,559	233,108	4,767
East North Central	**17,786,732**	**15,984,087**	**1,686,819**	**68,778**
Minnesota	1,895,059	1,699,376	179,113	8,048
Iowa	1,287,274	1,120,689	154,738	4,292
Missouri	2,315,443	2,053,388	241,002	11,444
North Dakota	308,337	260,924	42,837	2,778
South Dakota	322,335	278,292	40,864	982
Nebraska	772,475	639,913	124,189	3,272
Kansas	1,163,345	994,910	155,293	9,937
West North Central	**8,064,268**	**7,047,492**	**938,036**	**40,753**
Delaware	295,777	266,389	28,173	698
Maryland	1,837,777	1,656,155	174,937	5,764
District of Columbia	213,650	187,428	26,018	167
Virginia	2,483,753	2,213,093	239,537	4,668
West Virginia	844,694	740,941	91,838	10,468
North Carolina	3,072,554	2,684,315	362,323	13,674
South Carolina	1,561,149	1,361,198	189,764	4,311
Georgia	2,818,972	2,520,055	270,896	19,123
Florida	6,067,348	5,370,334	652,329	25,765
South Atlantic	**19,195,674**	**16,999,908**	**2,035,815**	**84,638**
Kentucky	1,635,930	1,445,538	169,922	7,346
Tennessee	2,202,337	1,945,485	235,787	18,351
Alabama	1,824,432	1,603,247	208,780	8,796
Mississippi	1,106,184	963,675	132,519	5,245
East South Central	**6,768,883**	**5,957,945**	**747,008**	**39,738**
Arkansas	1,123,871	982,202	116,157	20,988
Louisiana	1,768,029	1,556,191	183,893	15,612
Oklahoma	1,533,995	1,325,730	181,942	15,323
Texas	7,066,228	6,142,432	834,032	59,315
West South Central	**11,492,123**	**10,006,555**	**1,316,024**	**111,238**
Montana	416,418	347,986	60,628	4,118
Idaho	459,878	387,691	68,506	3,076
Wyoming	241,820	197,794	40,770	2,589
Colorado	1,554,728	1,357,237	194,805	1,311
New Mexico	648,406	553,423	88,928	4,734
Arizona	1,526,581	1,354,151	156,964	4,624
Utah	610,252	543,083	58,304	6,642
Nevada	487,827	422,820	63,926	598
Mountain	**5,945,910**	**5,164,185**	**732,831**	**27,692**
Washington	2,072,729	1,838,251	224,463	6,161
Oregon	1,241,067	1,077,415	160,032	2,379
California	11,392,953	9,968,045	1,362,986	35,721
Pacific	**14,706,749**	**12,883,711**	**1,747,481**	**44,261**
Alaska	217,268	185,860	29,377	488
Hawaii	350,547	302,747	45,638	664
Alaska & Hawaii	**567,815**	**488,607**	**75,015**	**1,152**

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TABLE 52B

AVERAGE NUMBER OF CUSTOMERS TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND CERTAIN CLASS OF SERVICE—YEAR 1987r

Division/State	Total Ultimate Customers	Residential	Commercial	Industrial
Total United States	**103,759,006**	**91,647,359**	**11,273,082**	**490,553**
Maine	596,595	532,410	60,656	2,355
New Hampshire	519,729	453,685	62,636	1,482
Vermont	274,597	240,706	32,051	1,008
Massachusetts	2,488,684	2,211,830	256,320	13,099
Rhode Island	411,371	367,427	40,410	2,683
Connecticut	1,373,209	1,249,780	114,801	4,786
New England	**5,664,185**	**5,055,838**	**566,874**	**25,413**
New York	6,878,861	6,073,214	769,792	9,968
New Jersey	3,157,929	2,780,427	357,602	12,387
Pennsylvania	4,997,090	4,465,743	494,460	28,993
Middle Atlantic	**15,033,880**	**13,319,384**	**1,621,854**	**51,348**
Ohio	4,534,371	4,071,299	418,107	28,733
Indiana	2,330,459	2,080,867	230,888	13,812
Illinois	4,671,478	4,231,011	419,257	6,418
Michigan	3,906,928	3,527,654	359,927	13,572
Wisconsin	2,143,503	1,904,796	228,913	4,692
East North Central	**17,586,739**	**15,815,627**	**1,657,092**	**67,227**
Minnesota	1,861,481	1,668,615	176,590	7,868
Iowa	1,282,243	1,116,856	153,673	4,268
Missouri	2,275,096	2,019,050	235,398	11,401
North Dakota	306,491	259,516	42,532	2,674
South Dakota	318,968	275,708	40,478	973
Nebraska	765,529	633,446	123,806	3,204
Kansas	1,154,636	988,532	153,019	9,953
West North Central	**7,964,444**	**6,961,723**	**925,496**	**40,341**
Delaware	286,856	258,847	26,795	704
Maryland	1,784,349	1,610,043	167,842	5,574
District of Columbia	211,002	185,174	25,621	170
Virginia	2,408,600	2,148,874	229,791	4,496
West Virginia	835,567	733,999	89,789	10,313
North Carolina	2,993,735	2,617,143	351,494	13,226
South Carolina	1,527,261	1,334,429	182,769	4,204
Georgia	2,742,591	2,454,563	260,294	19,180
Florida	5,865,598	5,194,775	626,049	26,990
South Atlantic	**18,665,559**	**16,537,847**	**1,960,444**	**84,857**
Kentucky	1,607,593	1,421,540	165,964	7,355
Tennessee	2,155,095	1,908,976	226,456	17,016
Alabama	1,789,178	1,574,042	203,122	8,499
Mississippi	1,094,026	954,592	129,602	5,161
East South Central	**6,645,892**	**5,859,150**	**725,144**	**38,031**
Arkansas	1,105,651	966,881	114,149	20,228
Louisiana	1,793,670	1,580,839	185,008	16,100
Oklahoma	1,534,808	1,326,479	182,281	15,249
Texas	7,024,911	6,100,175	835,762	59,384
West South Central	**11,459,040**	**9,974,374**	**1,317,200**	**110,961**
Montana	406,618	340,358	59,069	3,556
Idaho	455,916	384,764	67,492	3,046
Wyoming	241,528	197,776	40,688	2,406
Colorado	1,540,547	1,344,894	192,904	1,343
New Mexico	635,682	542,330	87,355	4,722
Arizona	1,477,351	1,309,091	152,804	4,575
Utah	605,625	538,761	57,451	7,251
Nevada	462,608	401,294	60,265	579
Mountain	**5,825,875**	**5,059,268**	**718,028**	**27,478**
Washington	2,026,174	1,798,078	218,378	5,888
Oregon	1,238,776	1,074,496	160,818	2,184
California	11,098,999	9,710,048	1,328,106	35,637
Pacific	**14,363,949**	**12,582,622**	**1,707,302**	**43,709**
Alaska	217,228	186,169	28,955	533
Hawaii	342,215	295,357	44,693	655
Alaska & Hawaii	**559,443**	**481,526**	**73,648**	**1,188**

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TABLE 53A

AVERAGE NUMBER OF CUSTOMERS INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND CERTAIN CLASS OF SERVICE—YEAR 1988p

Division/State	Total Ultimate Customers	Residential	Commercial	Industrial
Total United States	**80,950,775**	**71,410,880**	**8,890,456**	**368,284**
Maine	585,953	521,971	60,452	2,402
New Hampshire	471,945	410,020	58,530	1,489
Vermont	218,711	190,878	26,949	129
Massachusetts	2,219,718	1,968,633	235,695	8,060
Rhode Island	416,779	371,817	41,428	2,664
Connecticut	1,344,274	1,223,318	112,389	4,608
New England	**5,257,380**	**4,686,637**	**535,443**	**19,352**
New York	6,812,308	6,005,651	773,634	7,858
New Jersey	3,163,971	2,780,763	362,993	12,186
Pennsylvania	4,839,139	4,313,046	490,327	28,919
Middle Atlantic	**14,815,418**	**13,099,460**	**1,626,954**	**48,963**
Ohio	4,044,800	3,625,059	377,108	27,394
Indiana	1,815,682	1,608,618	192,198	11,069
Illinois	4,323,355	3,909,295	394,852	5,698
Michigan	3,513,688	3,169,107	327,724	12,361
Wisconsin	1,801,856	1,607,171	187,625	2,710
East North Central	**15,499,381**	**13,919,250**	**1,479,507**	**59,232**
Minnesota	1,146,536	1,011,885	123,424	6,077
Iowa	937,868	804,865	124,664	2,413
Missouri	1,556,085	1,367,846	174,722	7,888
North Dakota	196,613	165,136	28,867	1,644
South Dakota	173,435	145,918	26,170	439
Nebraska	–	–	–	–
Kansas	771,767	676,878	86,085	7,569
West North Central	**4,782,304**	**4,172,528**	**563,932**	**26,030**
Delaware	215,381	193,776	20,987	408
Maryland	1,694,971	1,526,251	162,507	5,413
District of Columbia	213,650	187,428	26,018	167
Virginia	2,093,660	1,861,383	203,897	3,400
West Virginia	836,561	733,770	90,935	10,412
North Carolina	2,083,918	1,786,194	278,418	10,505
South Carolina	949,632	811,083	131,031	3,480
Georgia	1,594,449	1,398,257	181,217	12,290
Florida	4,749,339	4,205,490	505,591	21,637
South Atlantic	**14,431,561**	**12,703,632**	**1,600,601**	**67,712**
Kentucky	948,617	819,342	112,842	4,392
Tennessee	37,377	33,297	3,794	136
Alabama	1,099,348	957,233	136,503	4,975
Mississippi	512,459	436,566	68,902	3,931
East South Central	**2,597,801**	**2,246,438**	**322,041**	**13,434**
Arkansas	695,596	596,862	76,424	19,866
Louisiana	1,383,865	1,214,972	144,039	13,079
Oklahoma	1,039,137	900,738	115,726	12,971
Texas	5,181,679	4,500,851	601,908	52,078
West South Central	**8,300,277**	**7,213,423**	**938,097**	**97,994**
Montana	307,061	255,224	44,515	4,059
Idaho	383,806	322,046	58,447	2,775
Wyoming	154,505	128,973	23,170	2,122
Colorado	995,222	882,630	111,729	171
New Mexico	456,954	398,766	52,877	4,190
Arizona	868,516	766,299	96,816	3,785
Utah	470,667	422,321	40,147	6,428
Nevada	460,392	400,551	59,156	571
Mountain	**4,097,123**	**3,576,810**	**486,857**	**24,101**
Washington	956,918	849,713	102,250	3,450
Oregon	978,327	847,825	127,670	1,799
California	8,868,824	7,779,958	1,059,609	5,182
Pacific	**10,804,069**	**9,477,496**	**1,289,529**	**10,431**
Alaska	14,914	12,459	1,857	371
Hawaii	350,547	302,747	45,638	664
Alaska & Hawaii	**365,461**	**315,206**	**47,495**	**1,035**

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TABLE 53B

AVERAGE NUMBER OF CUSTOMERS INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND CERTAIN CLASS OF SERVICE – YEAR 1987r

Division/State	Total Ultimate Customers	Residential	Commercial	Industrial
Total United States	**79,464,664**	**70,155,434**	**8,672,033**	**363,047**
Maine	570,494	509,448	57,705	2,214
New Hampshire	454,330	395,948	55,042	1,438
Vermont	212,443	185,731	25,829	133
Massachusetts	2,175,134	1,931,976	227,890	8,089
Rhode Island	407,810	364,272	40,025	2,664
Connecticut	1,313,561	1,197,051	108,076	4,649
New England	**5,133,772**	**4,584,426**	**514,567**	**19,187**
New York	6,724,386	5,936,972	754,013	7,840
New Jersey	3,099,606	2,728,105	351,893	12,123
Pennsylvania	4,760,007	4,246,331	478,359	28,512
Middle Atlantic	**14,583,999**	**12,911,408**	**1,584,265**	**48,475**
Ohio	3,996,658	3,585,425	369,278	26,858
Indiana	1,788,568	1,585,544	188,906	10,427
Illinois	4,279,264	3,872,319	388,109	5,496
Michigan	3,465,325	3,129,131	319,499	12,223
Wisconsin	1,776,502	1,585,869	183,676	2,602
East North Central	**15,306,317**	**13,758,288**	**1,449,468**	**57,606**
Minnesota	1,125,315	993,268	121,015	5,897
Iowa	933,156	801,233	123,698	2,398
Missouri	1,528,998	1,345,759	169,922	7,897
North Dakota	195,848	164,640	28,671	1,550
South Dakota	171,276	144,161	25,786	429
Nebraska	—	—	—	—
Kansas	763,361	670,327	84,232	7,574
West North Central	**4,717,954**	**4,119,388**	**553,324**	**25,745**
Delaware	208,305	187,735	19,952	414
Maryland	1,645,586	1,483,762	155,830	5,222
District of Columbia	211,002	185,174	25,621	170
Virginia	2,030,727	1,808,153	195,268	3,338
West Virginia	827,480	726,865	88,895	10,257
North Carolina	2,025,572	1,737,954	268,919	10,203
South Carolina	928,988	794,505	127,156	3,397
Georgia	1,563,461	1,372,397	176,127	12,362
Florida	4,577,947	4,056,728	484,159	21,483
South Atlantic	**14,019,068**	**12,353,273**	**1,541,927**	**66,846**
Kentucky	932,035	805,933	109,938	4,399
Tennessee	36,777	32,842	3,653	132
Alabama	1,078,907	940,836	132,632	4,814
Mississippi	507,876	433,073	67,931	3,871
East South Central	**2,555,595**	**2,212,684**	**314,154**	**13,216**
Arkansas	683,935	587,450	75,016	19,111
Louisiana	1,383,394	1,214,363	144,350	13,544
Oklahoma	1,041,678	903,549	115,716	12,876
Texas	5,138,039	4,460,060	600,010	52,008
West South Central	**8,247,046**	**7,165,422**	**935,092**	**97,539**
Montana	298,147	248,557	42,865	3,502
Idaho	380,401	319,630	57,478	2,744
Wyoming	154,368	129,027	23,170	1,936
Colorado	986,938	875,597	110,452	156
New Mexico	446,734	390,131	51,357	4,182
Arizona	840,716	740,963	94,315	3,744
Utah	466,255	418,164	39,332	7,040
Nevada	436,247	379,829	55,794	508
Mountain	**4,009,806**	**3,501,898**	**474,763**	**23,812**
Washington	932,592	828,891	99,178	3,037
Oregon	977,982	847,098	128,218	1,587
California	8,624,533	7,565,847	1,030,673	4,928
Pacific	**10,535,107**	**9,241,836**	**1,258,069**	**9,552**
Alaska	13,785	11,454	1,711	414
Hawaii	342,215	295,357	44,693	655
Alaska & Hawaii	**356,000**	**306,811**	**46,404**	**1,069**

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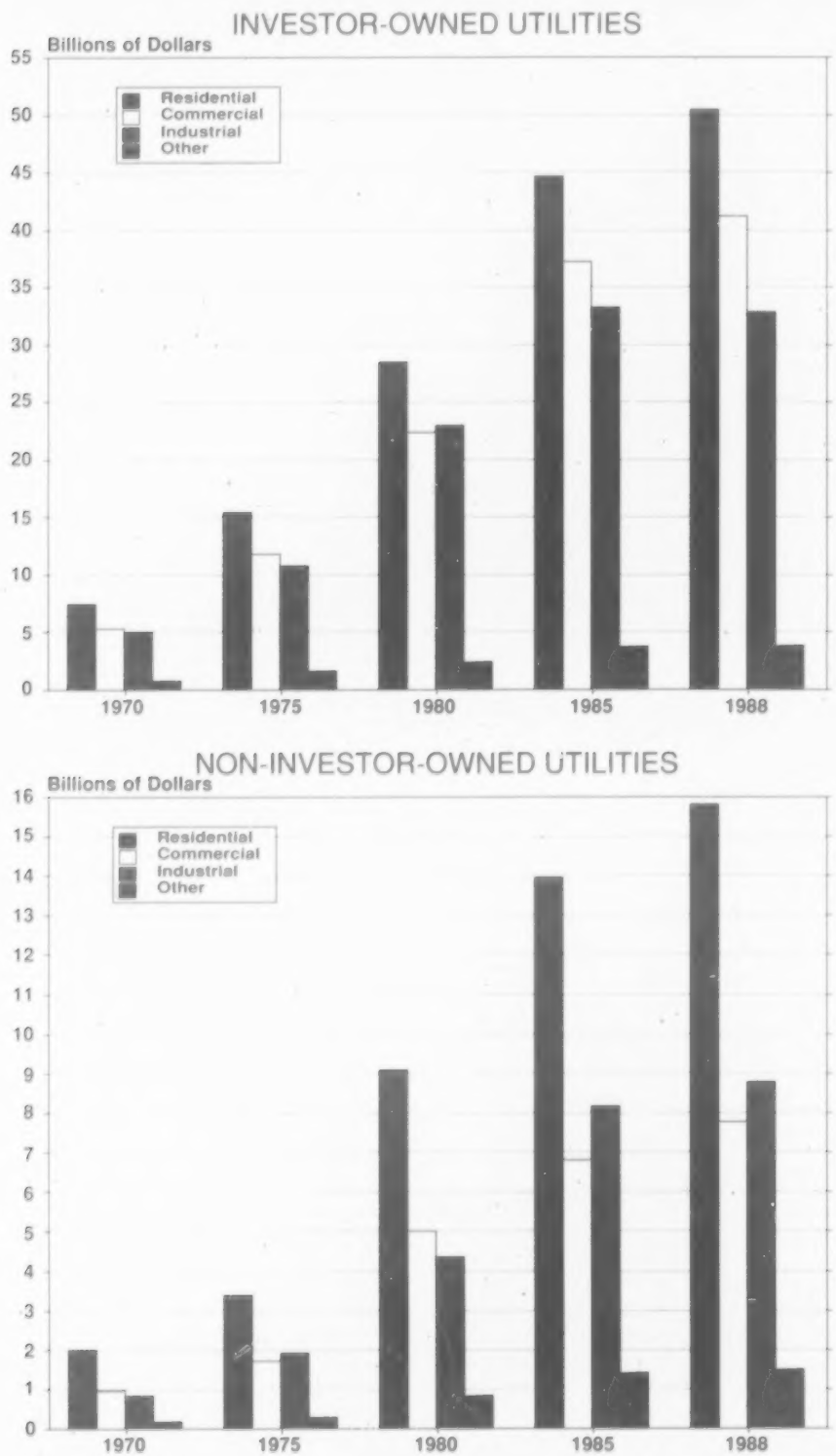
REVENUES

SECTION VIII

Chart VIII-A

REVENUE FROM ULTIMATE CUSTOMERS



Based on Tables 56 and 57, on page 65.

TABLE 56

REVENUES
TOTAL ELECTRIC UTILITY INDUSTRY

BY YEAR AND CLASS OF SERVICE
THOUSANDS OF DOLLARS

Year	Total Revenue from Sales †	Exports to Canada and Mexico	Total from Ultimate Customers	Residential	Commercial*	Industrial*	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Interdepartmental
1988p	**$162,249,135**	**$61,207**	**$162,187,928**	**$66,274,430**	**$49,007,367**	**$41,618,523**	**$1,504,060**	**$3,310,310**	**$296,882**	**$176,356**
1987r	155,713,924	33,407	155,700,236	63,049,059	46,745,107	40,630,608	1,509,246	3,273,260	301,635	191,321
1986	152,480,811	13,688	152,467,123	60,910,603	45,410,286	40,906,054	1,498,431	3,214,164	311,971	215,614
1985	149,187,568	25,216	149,162,352	58,591,751	44,060,554	41,367,847	1,476,092	3,163,473	313,165	189,470
1984	143,114,300	21,796	143,092,504	56,116,141	41,253,720	40,795,789	1,375,931	3,044,623	302,725	203,574
1983	129,596,675	7,874	129,588,801	51,226,246	37,103,377	36,611,630	1,324,955	2,864,037	296,766	161,790
1982	121,597,243	13,012	121,584,231	47,188,127	34,150,840	35,881,745	1,254,430	2,633,749	291,751	183,589
1981	111,028,011	26,838	111,001,173	42,824,457	31,325,322	33,030,093	1,168,691	2,247,307	238,554	166,749
1980	95,505,802	43,421	95,462,381	37,580,892	27,369,963	27,316,770	1,041,008	1,811,065	207,683	135,000
1979	79,649,846	9,609	79,640,237	30,798,693	22,264,356	23,825,487	918,157	1,517,333	188,628	127,583
1978	69,865,806	12,862	69,852,944	27,381,419	19,714,364	20,280,391	849,677	1,350,439	170,123	106,531
1977	62,629,713	19,684	62,610,029	24,687,500	18,021,548	17,629,321	776,771	1,245,155	145,680	104,054
1976	53,480,659	17,795	53,462,864	21,149,590	15,236,104	14,999,522	724,436	1,112,247	163,840	77,125
1975	46,864,685	11,229	46,853,456	18,803,156	13,486,624	12,707,490	659,332	975,799	159,160	61,835
1974	39,133,322	6,517	39,126,805	15,702,853	11,196,960	10,673,464	573,164	780,010	146,112	54,242
1973	31,668,281	5,422	31,662,859	13,194,773	9,147,188	8,073,636	491,831	620,991	91,903	42,537
1972	27,927,681	6,611	27,921,070	11,729,833	8,041,052	6,983,891	449,831	593,267	85,300	37,896
1971	24,735,122	9,963	24,725,159	10,483,526	7,071,971	6,133,964	411,534	512,772	77,862	33,530
1970	22,076,885	11,023	22,065,862	9,415,707	6,290,225	5,429,852	377,791	453,104	69,169	30,014
1969	20,144,225	4,876	20,139,349	8,532,729	5,704,764	5,044,857	350,563	417,571	62,981	25,884
1968	18,585,368	5,489	18,579,879	7,802,033	5,315,100	4,672,211	327,196	379,435	61,440	22,464

Note: Total may not equal sum of components due to independent rounding.
† Excludes other electric revenues.
** Commercial and Industrial are not wholly comparable on a year-to-year basis due to changes from one classification to another.*
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TABLE 57

REVENUES
INVESTOR-OWNED ELECTRIC UTILITIES

BY YEAR AND CLASS OF SERVICE
THOUSANDS OF DOLLARS

Year	Total Revenues	Other Revenues†	Total from Ultimate Customers	Residential	Commercial*	Industrial*	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Interdepartmental
1988p	**$134,555,680**	**$6,203,316**	**$128,352,364**	**$50,473,795**	**$41,236,932**	**$32,849,549**	**$1,181,298**	**$2,344,289**	**$150,151**	**$116,350**
1987r	129,437,054	6,124,194	123,312,860	47,962,072	39,437,160	32,110,727	1,198,413	2,320,698	147,336	136,454
1986	127,522,448	6,447,978	121,074,470	46,241,943	38,382,364	32,618,323	1,177,956	2,334,092	156,846	162,947
1985	125,547,432	6,711,160	118,836,272	44,651,261	37,241,520	33,204,216	1,159,701	2,285,783	157,728	136,064
1984	120,090,160	6,752,083	113,338,077	42,474,833	34,720,332	32,605,010	1,119,279	2,144,129	142,578	131,916
1983	109,446,384	6,581,164	102,865,220	39,067,481	31,336,661	29,275,314	1,057,872	1,899,057	126,300	102,536
1982	101,692,973	4,595,135	97,097,838	36,138,384	29,603,969	28,322,848	1,022,473	1,775,494	130,340	104,329
1981	94,266,325	5,497,327	88,768,998	32,622,129	26,370,929	26,986,678	933,861	1,641,632	120,124	93,645
1980	80,635,823	4,460,469	76,175,354	28,492,402	22,351,012	22,970,668	819,762	1,362,136	111,552	67,822
1979	68,151,992	4,274,055	63,877,937	23,613,621	18,463,690	19,801,718	716,209	1,137,987	80,002	64,710
1978	61,298,846	3,683,472	57,615,374	21,623,578	16,784,764	17,379,313	682,895	1,016,671	74,772	53,381
1977	55,141,656	3,364,784	51,776,872	19,541,802	15,404,917	15,092,313	632,154	964,452	90,263	50,971
1976	47,079,734	2,599,312	44,480,422	16,920,314	13,137,482	12,688,950	612,674	935,116	150,173	35,713
1975	41,855,398	2,285,281	39,570,117	15,434,811	11,766,583	10,785,231	558,554	841,853	157,539	25,546
1974	34,970,201	1,784,436	33,185,765	12,881,369	9,737,585	9,243,172	485,472	670,971	144,837	22,359
1973	27,525,926	1,208,947	26,316,979	10,590,178	7,807,644	6,875,953	412,921	522,826	90,753	16,704
1972	24,132,546	1,011,942	23,120,604	9,359,949	6,832,630	5,950,367	378,413	502,910	84,144	12,191
1971	21,230,373	835,581	20,394,792	8,308,330	6,016,096	5,199,601	347,972	435,949	76,701	10,143
1970	18,830,214	722,994	18,107,220	7,424,224	5,314,447	4,591,093	319,373	381,405	68,030	8,648
1969	17,163,515	647,843	16,515,672	6,722,985	4,804,558	4,274,968	296,028	347,078	61,855	8,200
1968	15,809,534	577,493	15,232,041	6,142,073	4,471,545	3,961,473	276,010	313,231	60,295	7,414

Note: Total may not equal sum of components due to independent rounding.
† Includes revenue from sales to non-investor-owned electric utilities, from exports and other electric revenues.
** Commercial and Industrial are not wholly comparable on a year-to-year basis due to changes from one classification to another.*
p Preliminary. r Revised.

TABLE 58

REVENUES IN PERCENT OF TOTAL
TOTAL ELECTRIC UTILITY INDUSTRY

BY YEAR AND CLASS OF SERVICE

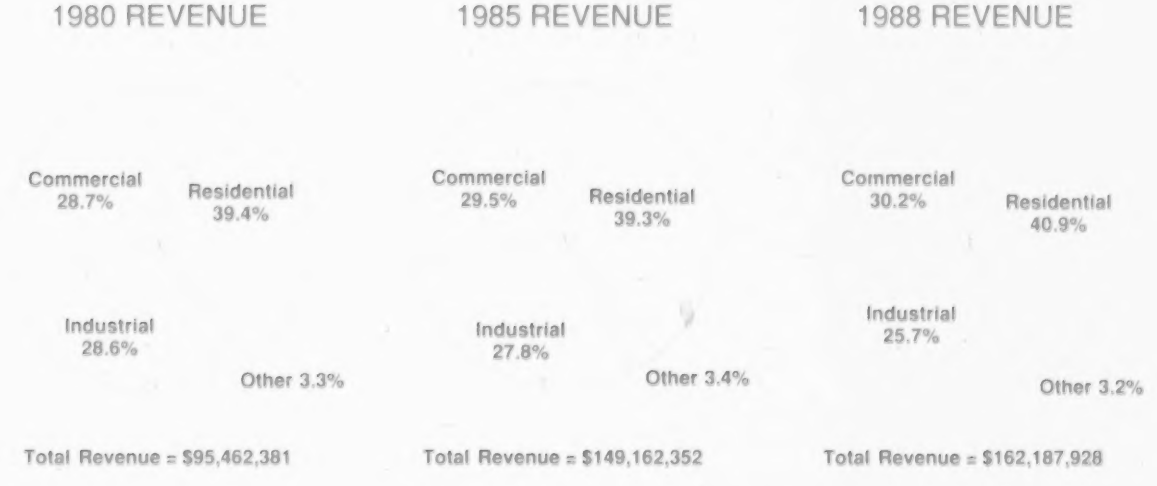
Year	Residential	Commercial	Industrial	Street & Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
1988p	**40.9%**	**30.2%**	**25.7%**	**0.9%**	**2.0%**	**0.2%**	**0.1%**
1987r	40.5	30.0	26.1	1.0	2.1	0.2	0.1
1986	40.0	29.8	26.8	1.0	2.1	0.2	0.1
1985	39.3	29.5	27.8	1.0	2.1	0.2	0.1
1984	39.3	28.8	28.5	1.0	2.1	0.2	0.1
1983	39.5	28.6	28.3	1.0	2.2	0.3	0.1
1982	38.8	28.1	29.5	1.0	2.2	0.2	0.2
1981	38.6	28.2	29.7	1.1	2.0	0.2	0.2
1980	39.4	28.7	28.6	1.1	1.9	0.2	0.1
1979	38.7	28.0	29.9	1.1	1.9	0.2	0.2
1978	39.2	28.2	29.0	1.2	1.9	0.3	0.2
1977	39.4	28.8	28.2	1.2	2.0	0.2	0.2
1976	39.6	28.5	28.0	1.4	2.1	0.3	0.1
1975	40.1	28.8	27.1	1.4	2.1	0.4	0.1
1974	40.1	28.6	27.3	1.5	2.0	0.4	0.1
1973	41.6	28.9	25.5	1.6	2.0	0.3	0.1
1972	42.0	28.8	25.0	1.6	2.1	0.3	0.2
1971	42.4	28.6	24.8	1.7	2.1	0.3	0.1
1970	42.7	28.5	24.6	1.7	2.1	0.3	0.1
1969	42.4	28.3	25.0	1.8	2.1	0.3	0.1
1968	42.0	28.6	25.2	1.8	2.0	0.3	0.1

Based on revenue data in Table 56. p Preliminary. r Revised.

CHART VIII-B

REVENUE

TOTAL ELECTRIC UTILITY INDUSTRY
BY YEAR AND CLASS OF SERVICE
THOUSANDS OF DOLLARS



Based on Table 58, as shown above.

TABLE 59A

REVENUES
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND CLASS OF SERVICE
YEAR 1988p – THOUSANDS OF DOLLARS

Division/State	Total from Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**$162,187,928**	**$66,274,430**	**$49,007,367**	**$41,618,523**	**$1,504,060**	**$3,310,310**	**$296,882**	**$176,356**
Maine	755,686	322,225	182,442	234,496	9,609	6,799	–	115
New Hampshire	720,548	328,984	167,798	212,067	6,841	4,858	–	–
Vermont	374,649	158,267	120,407	89,005	2,919	4,028	–	24
Massachusetts	3,483,816	1,330,935	1,351,264	697,803	52,781	45,263	5,770	–
Rhode Island	493,704	200,192	177,303	101,034	6,752	8,422	–	–
Connecticut	2,290,559	961,530	838,687	446,331	32,176	3,246	7,932	657
New England	**8,118,961**	**3,302,133**	**2,837,901**	**1,780,735**	**111,079**	**72,616**	**13,702**	**795**
New York	10,719,573	3,915,910	4,486,969	1,481,767	140,503	543,350	148,971	2,104
New Jersey	5,283,534	2,023,497	2,105,107	1,079,815	72,855	231	393	1,636
Pennsylvania	8,117,061	3,308,868	2,092,944	2,571,061	83,116	9,217	46,675	5,179
Middle Atlantic	**24,120,169**	**9,248,275**	**8,685,019**	**5,132,643**	**296,474**	**552,799**	**196,039**	**8,919**
Ohio	7,808,449	2,934,328	2,003,672	2,618,219	57,140	190,888	3,711	491
Indiana	3,840,057	1,559,365	921,513	1,308,692	33,667	13,094	1,083	2,642
Illinois	8,025,678	3,290,304	2,232,951	2,016,615	47,137	412,269	26,247	155
Michigan	5,372,547	1,845,654	1,474,863	1,941,458	56,728	50,924	–	2,921
Wisconsin	2,607,113	1,074,997	740,797	746,473	27,458	12,633	–	4,755
East North Central	**27,653,844**	**10,704,647**	**7,373,796**	**8,631,458**	**222,130**	**679,808**	**31,041**	**10,964**
Minnesota	2,433,460	1,003,353	450,329	936,334	22,038	21,199	–	207
Iowa	1,729,296	807,099	406,723	468,138	18,267	29,029	–	41
Missouri	3,283,274	1,531,453	1,120,567	571,331	28,610	30,278	320	715
North Dakota	397,405	185,728	96,426	96,826	6,837	11,477	–	112
South Dakota	369,030	195,976	110,480	51,899	4,965	5,709	–	1
Nebraska	902,054	397,127	306,785	163,273	13,514	20,482	–	873
Kansas	1,688,254	713,424	582,970	363,189	17,008	11,617	–	47
West North Central	**10,802,773**	**4,834,160**	**3,074,280**	**2,650,988**	**111,237**	**129,790**	**320**	**1,997**
Delaware	490,877	209,521	142,909	134,181	3,311	845	–	109
Maryland	2,777,705	1,240,222	712,480	775,759	36,783	431	10,287	1,744
District of Columbia	575,860	91,984	317,186	149,159	4,016	–	13,514	–
Virginia	3,966,885	1,857,867	1,077,608	630,800	36,588	364,023	–	–
West Virginia	1,076,860	448,419	261,919	359,231	6,213	1,074	–	5
North Carolina	5,155,008	2,376,527	1,311,022	1,366,539	29,779	69,780	–	1,361
South Carolina	2,938,703	1,222,725	662,492	1,014,802	10,306	27,863	–	515
Georgia	4,613,511	1,950,216	1,421,550	1,182,523	38,090	14,340	6,792	–
Florida	9,008,112	4,883,726	3,005,287	845,138	69,787	191,687	5,067	7,421
South Atlantic	**30,603,520**	**14,281,206**	**8,912,452**	**6,458,133**	**234,873**	**670,043**	**35,660**	**11,154**
Kentucky	2,704,415	951,160	477,083	1,057,838	14,641	201,686	–	2,008
Tennessee	3,813,621	1,641,741	487,445	1,651,796	26,439	3,100	–	3,100
Alabama	3,118,692	1,271,632	662,289	1,160,382	20,838	1,230	–	2,322
Mississippi	1,742,257	762,882	465,178	479,950	16,658	17,341	–	248
East South Central	**11,378,986**	**4,627,414**	**2,091,995**	**4,349,965**	**78,576**	**223,357**	**–**	**7,678**
Arkansas	1,619,981	771,457	382,989	434,773	9,507	21,255	–	–
Louisiana	3,449,214	1,388,203	841,826	1,020,230	27,717	100,112	–	71,127
Oklahoma	2,005,982	956,290	569,461	379,604	13,458	87,170	–	–
Texas	12,275,751	5,148,116	3,476,251	3,213,788	93,147	328,088	–	16,360
West South Central	**19,350,928**	**8,264,066**	**5,270,527**	**5,048,395**	**143,828**	**536,625**	**–**	**87,487**
Montana	521,730	178,461	134,078	198,744	6,197	3,435	–	816
Idaho	629,527	255,041	196,505	174,367	2,658	956	–	*
Wyoming	485,768	105,091	117,484	257,535	3,638	1,534	–	486
Colorado	1,694,675	661,131	746,488	253,351	22,832	10,873	–	–
New Mexico	947,625	310,622	354,699	231,451	7,746	40,457	–	2,650
Arizona	2,888,252	1,290,638	1,018,955	499,456	31,015	38,041	1,616	8,531
Utah	927,309	320,448	309,630	257,918	5,641	33,618	–	53
Nevada	731,063	293,927	213,816	205,875	5,128	12,314	–	3
Mountain	**8,825,950**	**3,415,358**	**3,091,656**	**2,078,697**	**84,856**	**141,229**	**1,616**	**12,539**
Washington	2,853,517	1,116,469	677,413	980,342	26,086	51,536	573	1,099
Oregon	1,639,695	661,104	514,035	445,999	14,307	2,760	–	1,490
California	15,907,967	5,483,970	6,142,096	3,820,393	166,749	244,617	17,930	32,212
Pacific	**20,401,178**	**7,261,543**	**7,333,544**	**5,246,734**	**207,142**	**298,913**	**18,503**	**34,801**
Alaska	344,091	145,940	160,216	23,542	9,241	5,130	–	22
Hawaii	587,528	189,689	175,981	217,234	4,624	–	–	–
Alaska & Hawaii	**931,618**	**335,628**	**336,197**	**240,776**	**13,865**	**5,130**	**–**	**22**

Note: Total may not equal sum of components due to independent rounding.
p Preliminary.
** Less than five hundred dollars.*

TABLE 59B

REVENUES
TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND CLASS OF SERVICE
YEAR 1987r—THOUSANDS OF DOLLARS

Division/State	Total from Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**$155,700,236**	**$63,049,059**	**$46,745,107**	**$40,630,608**	**$1,509,246**	**$3,273,260**	**$301,635**	**$191,321**
Maine	698,467	302,508	170,698	209,633	9,637	5,873	–	119
New Hampshire	669,160	303,891	154,555	199,459	6,928	4,326	–	–
Vermont	361,375	154,620	114,886	85,592	2,896	3,361	–	20
Massachusetts	3,374,447	1,271,168	1,319,876	686,111	53,396	43,897	–	–
Rhode Island	484,504	193,297	171,082	105,135	6,886	8,104	–	–
Connecticut	2,126,888	884,920	778,281	422,496	31,069	2,114	7,378	631
New England	**7,714,841**	**3,110,405**	**2,709,376**	**1,708,425**	**110,812**	**67,675**	**7,378**	**770**
New York	10,370,773	3,722,169	4,361,386	1,432,663	140,800	555,174	156,523	2,057
New Jersey	5,038,611	1,911,882	1,992,835	1,057,382	73,970	231	414	1,896
Pennsylvania	7,832,867	3,163,053	1,987,348	2,536,998	84,003	9,042	47,218	5,204
Middle Atlantic	**23,242,251**	**8,797,105**	**8,341,570**	**5,027,044**	**298,774**	**564,447**	**204,156**	**9,157**
Ohio	7,527,859	2,836,249	1,937,437	2,498,526	59,872	191,125	3,652	998
Indiana	3,779,931	1,528,354	912,198	1,289,322	33,569	12,807	1,137	2,546
Illinois	8,138,195	3,244,321	2,270,401	2,116,314	49,178	429,719	28,205	56
Michigan	5,102,263	1,758,015	1,414,263	1,825,837	56,313	45,477	–	2,357
Wisconsin	2,504,537	1,025,385	708,518	723,629	29,430	12,955	–	4,620
East North Central	**27,052,785**	**10,392,323**	**7,242,816**	**8,453,628**	**228,363**	**692,083**	**32,994**	**10,578**
Minnesota	2,227,622	914,977	414,431	857,019	21,567	19,443	–	186
Iowa	1,685,586	783,754	398,741	454,635	18,953	29,449	–	54
Missouri	3,150,328	1,469,512	1,065,498	557,043	28,455	28,850	285	686
North Dakota	376,739	173,382	94,353	91,598	6,538	10,747	–	120
South Dakota	340,893	182,486	101,286	46,976	4,843	5,300	–	2
Nebraska	853,251	375,742	289,951	154,367	13,086	19,670	–	435
Kansas	1,669,829	696,093	575,917	368,414	17,047	12,302	–	55
West North Central	**10,304,247**	**4,595,946**	**2,940,177**	**2,530,052**	**110,488**	**125,760**	**285**	**1,540**
Delaware	448,531	192,357	129,605	122,525	3,098	842	–	104
Maryland	2,696,324	1,185,256	690,621	770,546	37,599	430	10,299	1,574
District of Columbia	578,893	92,114	317,483	151,228	4,046	–	14,022	–
Virginia	3,852,532	1,788,939	1,044,917	611,977	37,466	369,233	–	–
West Virginia	1,056,844	439,636	259,583	350,042	6,343	1,240	–	–
North Carolina	5,031,756	2,304,831	1,272,484	1,355,388	28,943	68,758	–	1,351
South Carolina	2,906,253	1,213,939	647,998	1,005,332	10,459	28,014	–	511
Georgia	4,272,344	1,839,960	1,266,671	1,110,119	35,410	14,063	6,121	–
Florida	8,410,074	4,570,311	2,695,253	886,805	66,262	179,043	5,255	7,145
South Atlantic	**29,253,551**	**13,527,342**	**8,324,615**	**6,363,962**	**229,627**	**661,623**	**35,697**	**10,685**
Kentucky	2,634,694	921,238	462,373	1,024,383	14,540	209,166	–	2,995
Tennessee	3,942,995	1,596,753	501,592	1,812,153	26,272	2,788	–	3,437
Alabama	3,058,350	1,253,749	648,212	1,133,032	20,327	1,155	–	1,876
Mississippi	1,662,046	731,250	435,237	460,670	14,258	20,459	–	173
East South Central	**11,298,086**	**4,502,990**	**2,047,413**	**4,430,237**	**75,397**	**233,568**	**–**	**8,480**
Arkansas	1,574,776	757,985	372,493	415,415	9,238	19,644	–	–
Louisiana	3,427,491	1,407,282	804,901	1,000,921	26,357	100,230	–	87,800
Oklahoma	1,980,012	932,200	568,706	382,134	13,631	83,342	–	–
Texas	11,616,142	4,850,444	3,261,605	3,091,839	89,703	308,333	–	14,217
West South Central	**18,598,421**	**7,947,912**	**5,007,705**	**4,890,309**	**138,929**	**511,549**	**–**	**102,017**
Montana	466,561	164,347	123,889	168,645	5,976	2,972	–	732
Idaho	592,381	238,114	187,842	162,051	3,435	940	–	–
Wyoming	469,287	102,180	117,365	243,715	3,622	1,657	–	748
Colorado	1,605,044	631,659	681,583	259,192	21,616	10,992	–	–
New Mexico	916,398	300,728	342,252	223,903	7,408	38,324	–	3,781
Arizona	2,667,048	1,184,749	943,172	458,893	28,458	37,632	1,647	12,497
Utah	904,973	315,880	304,010	243,428	6,505	35,100	–	49
Nevada	663,689	263,638	195,980	189,067	4,975	10,026	–	4
Mountain	**8,285,379**	**3,201,295**	**2,896,092**	**1,948,895**	**81,995**	**137,644**	**1,647**	**17,812**
Washington	2,509,997	1,048,571	643,701	762,098	19,528	34,720	628	752
Oregon	1,613,913	635,467	528,176	431,251	14,854	2,765	–	1,400
California	14,880,994	4,847,564	5,729,401	3,834,758	186,139	236,172	18,851	28,109
Pacific	**19,004,904**	**6,531,602**	**6,901,278**	**5,028,107**	**220,521**	**273,656**	**19,479**	**30,260**
Alaska	342,959	146,862	156,767	24,727	9,326	5,255	–	23
Hawaii	602,811	195,277	177,298	225,220	5,016	–	–	–
Alaska & Hawaii	**945,770**	**342,138**	**334,065**	**249,947**	**14,342**	**5,255**	**–**	**23**

Note: Total may not equal sum of components due to independent rounding.
r Revised.

TABLE 60A

REVENUES
INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND CLASS OF SERVICE
YEAR 1988p—THOUSANDS OF DOLLARS

Division/State	Total from Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**$128,352,364**	**$50,473,795**	**$41,236,932**	**$32,849,549**	**$1,181,298**	**$2,344,289**	**$150,151**	**$116,350**
Maine	730,828	309,127	178,298	227,656	9,301	6,447	–	–
New Hampshire	662,754	293,177	150,545	207,737	6,501	4,794	–	–
Vermont	299,508	123,958	110,183	60,411	2,263	2,693	–	–
Massachusetts	2,983,653	1,147,541	1,241,211	516,802	47,986	24,344	5,770	–
Rhode Island	490,392	198,269	176,760	100,210	6,734	8,420	–	–
Connecticut	2,140,173	915,461	798,500	387,668	30,613	–	7,932	–
New England	**7,307,308**	**2,987,532**	**2,655,497**	**1,500,484**	**103,396**	**46,698**	**13,702**	**–**
New York	9,993,193	3,861,608	4,463,958	1,348,245	88,145	222,545	6,587	2,104
New Jersey	5,209,299	1,986,349	2,090,840	1,057,554	72,527	–	393	1,636
Pennsylvania	7,888,153	3,147,961	2,052,275	2,545,790	82,205	8,068	46,675	5,179
Middle Atlantic	**23,090,645**	**8,995,918**	**8,607,073**	**4,951,589**	**242,876**	**230,614**	**53,656**	**8,919**
Ohio	7,223,715	2,605,254	1,889,427	2,487,074	54,756	183,002	3,711	491
Indiana	3,192,355	1,160,374	824,563	1,165,820	29,020	8,853	1,083	2,642
Illinois	7,522,132	2,993,289	2,100,134	1,957,604	45,683	399,020	26,247	155
Michigan	4,892,160	1,653,706	1,321,648	1,822,447	49,809	41,629	–	2,921
Wisconsin	2,225,803	874,225	672,742	643,008	23,455	10,395	–	1,977
East North Central	**25,056,165**	**9,286,849**	**6,808,514**	**8,075,952**	**202,723**	**642,899**	**31,041**	**8,186**
Minnesota	1,660,724	520,599	281,469	825,667	17,326	15,456	–	207
Iowa	1,329,111	548,813	355,150	388,500	16,792	19,816	–	41
Missouri	2,518,806	1,057,945	956,540	462,720	24,954	16,566	–	81
North Dakota	217,118	96,624	50,549	61,335	3,322	5,176	–	112
South Dakota	209,482	89,495	75,233	40,163	2,692	1,898	–	1
Nebraska	–	–	–	–	–	–	–	–
Kansas	1,187,510	495,598	407,540	268,310	14,631	1,382	–	47
West North Central	**7,122,750**	**2,809,075**	**2,126,481**	**2,046,694**	**79,717**	**60,293**	**–**	**489**
Delaware	395,265	157,796	123,727	110,617	3,016	–	–	109
Maryland	2,604,532	1,131,297	671,399	758,442	31,363	–	10,287	1,744
District of Columbia	575,860	91,984	317,186	149,159	4,016	–	13,514	–
Virginia	3,464,968	1,552,486	997,083	530,665	33,194	351,539	–	–
West Virginia	1,070,857	444,692	260,659	358,285	6,213	1,002	–	5
North Carolina	3,900,163	1,603,435	1,040,859	1,179,649	23,081	52,822	–	316
South Carolina	2,065,006	746,658	499,500	788,452	8,138	21,743	–	515
Georgia	3,229,767	1,063,145	1,117,635	1,010,687	26,701	4,807	6,792	–
Florida	7,152,619	3,870,289	2,444,653	606,453	53,918	164,818	5,067	7,421
South Atlantic	**24,459,038**	**10,661,783**	**7,472,703**	**5,492,410**	**189,640**	**596,732**	**35,660**	**10,110**
Kentucky	1,397,782	499,258	344,194	343,245	10,225	200,817	–	43
Tennessee	66,435	27,519	14,151	22,936	413	1,415	–	–
Alabama	2,022,725	761,805	510,910	738,755	11,052	–	–	202
Mississippi	933,745	355,089	294,223	257,416	11,648	15,231	–	139
East South Central	**4,420,687**	**1,643,671**	**1,163,478**	**1,362,351**	**33,339**	**217,463**	**–**	**384**
Arkansas	1,125,657	471,028	283,982	343,958	8,070	18,620	–	–
Louisiana	2,944,138	1,069,481	746,299	935,657	27,013	94,562	–	71,127
Oklahoma	1,468,764	640,043	431,006	300,184	13,036	84,496	–	–
Texas	9,865,272	3,919,724	2,790,048	2,853,309	74,941	226,233	–	1,017
West South Central	**15,403,832**	**6,100,276**	**4,251,334**	**4,433,107**	**123,060**	**423,911**	**–**	**72,144**
Montana	337,134	118,763	100,073	109,294	5,252	2,974	–	778
Idaho	545,260	213,712	169,039	160,118	2,277	114	–	*
Wyoming	328,758	62,147	58,010	205,481	2,017	617	–	486
Colorado	1,101,168	398,410	543,622	136,498	17,408	5,230	–	–
New Mexico	690,531	226,846	259,195	160,569	6,648	35,760	–	1,512
Arizona	1,699,842	723,714	623,139	326,947	14,129	12,262	–	(350)
Utah	745,718	260,512	230,783	219,978	5,073	29,343	–	29
Nevada	681,401	280,554	198,840	184,982	5,025	11,999	–	–
Mountain	**6,129,812**	**2,284,658**	**2,182,701**	**1,503,868**	**57,829**	**98,299**	**–**	**2,457**
Washington	1,104,158	572,181	373,950	147,148	10,268	1	–	612
Oregon	1,249,283	519,787	434,010	280,583	13,426	170	–	1,307
California	12,397,130	4,412,189	4,978,845	2,831,682	120,249	26,331	16,092	11,743
Pacific	**14,750,571**	**5,504,156**	**5,786,805**	**3,259,412**	**143,942**	**26,502**	**16,092**	**13,662**
Alaska	24,027	10,187	6,364	6,447	151	878	–	–
Hawaii	587,528	189,689	175,981	217,234	4,624	–	–	–
Alaska & Hawaii	**611,554**	**199,875**	**182,345**	**223,680**	**4,775**	**878**	**–**	**–**

Note: Total may not equal sum of components due to independent rounding.
p Preliminary.
** Less than five hundred dollars.*
( ) Denotes negative figure.

TABLE 60B

REVENUES
INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND CLASS OF SERVICE
YEAR 1987r—THOUSANDS OF DOLLARS

Division/State	Total from Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
Total United States	**$123,312,860**	**$47,962,072**	**$39,437,160**	**$32,110,727**	**$1,198,413**	**$2,320,698**	**$147,336**	**$136,454**
Maine	675,264	290,100	166,874	203,508	9,339	5,442	–	–
New Hampshire	617,627	271,932	139,198	195,667	6,536	4,293	–	–
Vermont	289,889	121,652	105,541	58,311	2,257	2,128	–	–
Massachusetts	2,933,901	1,109,952	1,221,550	528,800	49,291	24,308	–	–
Rhode Island	481,659	191,641	170,622	104,427	6,866	8,102	–	–
Connecticut	2,022,336	853,326	750,716	380,970	29,946	–	7,378	–
New England	**7,020,675**	**2,838,603**	**2,554,500**	**1,471,684**	**104,236**	**44,273**	**7,378**	**–**
New York	9,618,277	3,670,319	4,339,528	1,295,435	86,374	217,941	6,623	2,057
New Jersey	4,965,171	1,875,408	1,978,785	1,035,025	73,642	–	414	1,896
Pennsylvania	7,611,220	3,007,601	1,947,525	2,512,644	83,132	7,897	47,218	5,204
Middle Atlantic	**22,194,668**	**8,553,328**	**8,265,839**	**4,843,104**	**243,147**	**225,838**	**54,256**	**9,157**
Ohio	6,952,951	2,514,324	1,823,324	2,370,010	57,467	183,176	3,652	998
Indiana	3,146,916	1,139,295	818,160	1,148,260	28,944	8,575	1,137	2,546
Illinois	7,631,797	2,944,929	2,136,486	2,057,237	47,790	417,094	28,205	56
Michigan	4,646,274	1,579,868	1,268,591	1,709,038	49,903	36,518	–	2,357
Wisconsin	2,128,900	828,209	642,695	619,985	25,438	10,685	–	1,889
East North Central	**24,506,838**	**9,006,624**	**6,689,256**	**7,904,529**	**209,543**	**656,047**	**32,994**	**7,846**
Minnesota	1,491,903	458,076	254,906	748,083	16,900	13,752	–	186
Iowa	1,294,713	532,476	347,806	376,687	17,469	20,220	–	54
Missouri	2,417,366	1,015,657	909,746	451,129	24,872	15,879	–	84
North Dakota	205,361	90,376	50,672	55,938	3,328	4,927	–	120
South Dakota	192,873	82,889	69,886	35,668	2,641	1,787	–	2
Nebraska	–	–	–	–	–	–	–	–
Kansas	1,178,191	482,312	404,982	274,805	14,677	1,360	–	55
West North Central	**6,780,407**	**2,661,787**	**2,037,997**	**1,942,309**	**79,888**	**57,925**	**–**	**501**
Delaware	356,128	143,248	110,961	99,001	2,814	–	–	104
Maryland	2,529,317	1,080,839	650,882	753,497	32,227	–	10,299	1,574
District of Columbia	578,893	92,114	317,483	151,228	4,046	–	14,022	–
Virginia	3,387,450	1,509,918	959,334	527,421	34,172	356,605	–	–
West Virginia	1,051,032	436,062	258,362	349,097	6,343	1,168	–	–
North Carolina	3,832,263	1,573,127	1,011,433	1,172,743	22,431	52,182	–	348
South Carolina	2,057,535	749,128	489,396	789,075	8,169	21,256	–	511
Georgia	2,939,044	985,939	976,726	940,553	24,933	4,773	6,121	–
Florida	6,625,589	3,597,233	2,238,256	574,209	51,026	152,464	5,255	7,145
South Atlantic	**23,357,251**	**10,167,607**	**7,012,833**	**5,356,823**	**186,161**	**588,448**	**35,697**	**9,682**
Kentucky	1,390,636	493,794	335,999	342,075	10,149	208,582	–	38
Tennessee	62,346	26,262	13,560	20,805	392	1,326	–	–
Alabama	1,993,311	759,957	501,088	721,298	10,756	–	–	211
Mississippi	892,019	339,205	274,087	251,002	9,336	18,389	–	–
East South Central	**4,338,311**	**1,619,217**	**1,124,734**	**1,335,181**	**30,633**	**228,296**	**–**	**249**
Arkansas	1,091,420	462,971	276,122	327,361	7,849	17,117	–	–
Louisiana	2,869,923	1,046,849	701,878	913,142	25,639	94,616	–	87,800
Oklahoma	1,453,031	625,937	430,162	302,998	13,216	80,717	–	–
Texas	9,328,616	3,685,216	2,626,905	2,733,702	72,368	209,653	–	772
West South Central	**14,742,990**	**5,820,974**	**4,035,067**	**4,277,203**	**119,072**	**402,103**	**–**	**88,572**
Montana	310,730	109,162	92,390	100,824	5,081	2,569	–	704
Idaho	514,173	198,611	162,812	149,595	3,056	99	–	–
Wyoming	314,594	60,503	56,983	193,693	1,955	712	–	748
Colorado	1,041,587	382,017	489,223	147,793	16,749	5,804	–	–
New Mexico	657,110	217,697	247,287	150,187	6,310	32,990	–	2,639
Arizona	1,586,691	673,828	585,939	298,288	12,789	11,707	–	4,141
Utah	724,349	256,093	224,663	206,749	5,934	30,881	–	29
Nevada	615,820	251,216	183,727	166,207	4,874	9,796	–	–
Mountain	**5,765,053**	**2,149,128**	**2,043,023**	**1,413,335**	**56,748**	**94,558**	**–**	**8,261**
Washington	1,040,833	536,023	359,057	135,406	10,140	1	–	207
Oregon	1,265,617	503,727	450,953	295,543	13,849	329	–	1,216
California	11,671,996	3,898,614	4,679,687	2,904,070	139,833	22,018	17,012	10,763
Pacific	**13,978,446**	**4,938,363**	**5,489,696**	**3,335,018**	**163,822**	**22,348**	**17,012**	**12,186**
Alaska	25,410	11,163	6,917	6,320	147	863	–	–
Hawaii	602,811	195,277	177,298	225,220	3,016	–	–	–
Alaska & Hawaii	**628,220**	**206,440**	**184,215**	**231,539**	**5,163**	**863**	**–**	**–**

Note: Total may not equal sum of components due to independent rounding.
r Revised.

TABLE 61

REVENUES
TOTAL ELECTRIC UTILITY INDUSTRY

BY QUARTER AND CLASS OF SERVICE
1983-1988 – THOUSANDS OF DOLLARS

Year – Quarter	Total from Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
YEAR – 1988p								
First Quarter	$ 38,941,426	$16,577,317	$11,336,685	$ 9,731,622	$ 375,662	$ 806,969	$ 72,973	$ 40,199
Second Quarter	37,189,222	14,168,212	11,611,662	10,121,428	374,653	800,548	71,146	41,574
Third Quarter	47,498,470	20,385,928	14,300,203	11,417,392	375,840	892,803	79,360	46,943
Fourth Quarter	38,558,811	15,142,974	11,758,817	10,348,081	377,905	809,990	73,403	47,640
Total	**$162,187,928**	**$66,274,430**	**$49,007,367**	**$41,618,523**	**$1,504,060**	**$3,310,310**	**$296,882**	**$176,356**
YEAR – 1987r								
First Quarter	$ 36,911,176	$15,538,031	$10,723,967	$ 9,365,935	$ 374,345	$ 781,436	$ 78,582	$ 48,879
Second Quarter	36,781,292	14,105,104	11,280,178	10,080,790	386,840	803,299	72,248	52,832
Third Quarter	45,058,203	19,146,820	13,469,845	11,050,602	372,533	889,609	76,886	51,907
Fourth Quarter	36,949,564	14,259,104	11,271,117	10,133,281	375,527	798,914	73,919	37,702
Total	**$155,700,236**	**$63,049,059**	**$46,745,107**	**$40,630,608**	**$1,509,246**	**$3,273,260**	**$301,635**	**$191,321**
YEAR – 1986								
First Quarter	$ 37,653,132	$15,555,169	$10,724,906	$10,047,285	$ 384,848	$ 801,638	$ 83,113	$ 56,171
Second Quarter	35,577,168	13,238,115	10,967,967	10,112,652	363,391	772,993	74,248	47,802
Third Quarter	43,036,318	17,967,869	12,873,376	10,821,908	379,282	856,022	77,953	59,908
Fourth Quarter	36,200,506	14,149,450	10,844,037	9,924,209	370,909	783,510	76,657	51,733
Total	**$152,467,123**	**$60,910,603**	**$45,410,286**	**$40,906,054**	**$1,498,431**	**$3,214,164**	**$311,971**	**$215,614**
YEAR – 1985								
First Quarter	$ 36,754,335	$15,166,967	$10,267,363	$10,046,679	$ 374,536	$ 768,455	$ 79,540	$ 50,797
Second Quarter	35,007,556	12,809,647	10,584,167	10,360,169	360,647	774,643	72,559	45,725
Third Quarter	41,420,795	16,852,682	12,406,550	10,822,584	370,430	836,349	81,215	50,986
Fourth Quarter	35,979,667	13,762,456	10,802,475	10,138,415	370,479	784,027	79,852	41,963
Total	**$149,162,352**	**$58,591,751**	**$44,060,554**	**$41,367,847**	**$1,476,092**	**$3,163,473**	**$313,165**	**$189,470**
YEAR – 1984								
First Quarter	$ 34,722,044	$14,377,830	$ 9,511,784	$ 9,633,803	$ 343,630	$ 736,404	$ 76,587	$ 42,006
Second Quarter	33,455,487	12,356,594	9,731,940	10,183,560	334,520	731,098	71,322	46,453
Third Quarter	40,284,362	16,304,756	11,860,912	10,819,381	350,557	813,464	77,858	57,434
Fourth Quarter	34,630,610	13,076,961	10,149,085	10,159,044	347,224	763,657	76,958	57,681
Total	**$143,092,504**	**$56,116,141**	**$41,253,720**	**$40,795,789**	**$1,375,931**	**$3,044,623**	**$302,725**	**$203,574**
YEAR – 1983								
First Quarter	$ 30,583,012	$12,412,872	$ 8,510,712	$ 8,526,308	$ 334,860	$ 686,136	$ 77,160	$ 34,963
Second Quarter	29,337,252	10,887,230	8,574,493	8,778,599	316,158	673,477	67,335	39,960
Third Quarter	37,733,929	15,847,346	10,820,922	9,848,254	335,140	761,923	73,698	46,645
Fourth Quarter	31,934,609	12,078,798	9,197,249	9,458,469	338,797	742,501	78,573	40,221
Total	**$129,588,801**	**$51,226,246**	**$37,103,377**	**$36,611,630**	**$1,324,955**	**$2,864,037**	**$296,766**	**$161,790**

Note: Total may not equal sum of components due to independent rounding.
p Preliminary. r Revised.

TABLE 62

REVENUES
INVESTOR-OWNED ELECTRIC UTILITIES

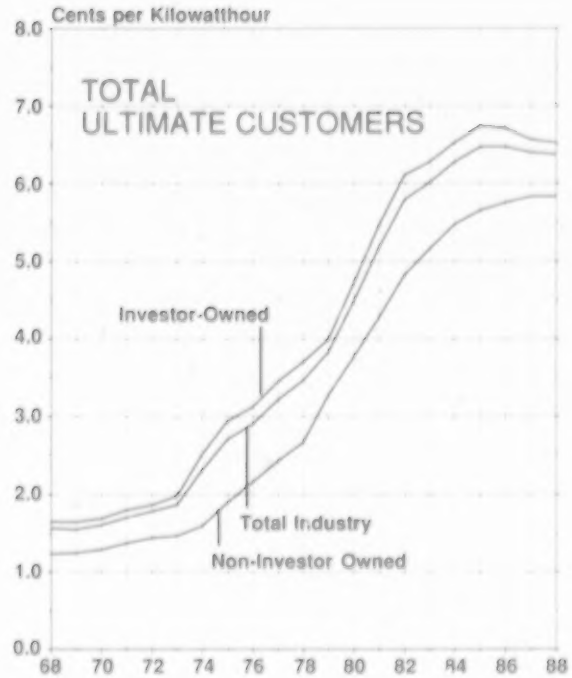
BY QUARTER AND CLASS OF SERVICE
1983-1988—THOUSANDS OF DOLLARS

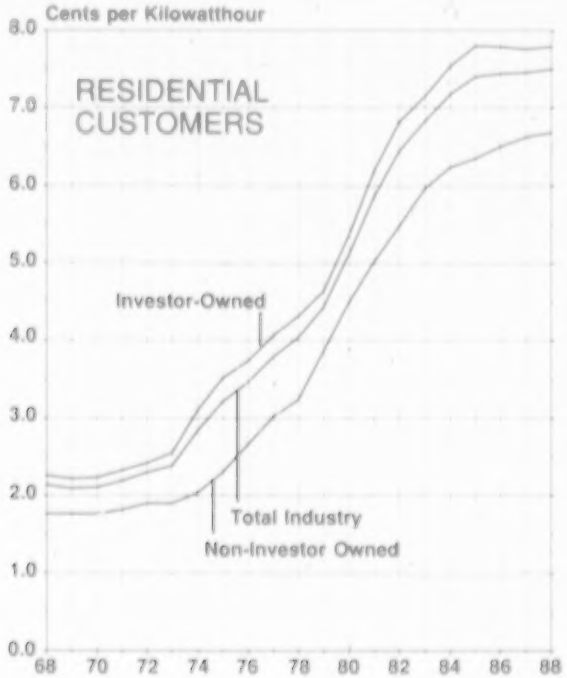
Year—Quarter	Total from Ultimate Customers	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Inter-departmental
YEAR—1988p								
First Quarter	$ 30,586,696	$12,527,929	$ 9,517,796	$ 7,614,023	$ 296,916	$ 568,198	$ 34,928	$ 26,906
Second Quarter	29,561,052	10,826,098	9,766,071	8,043,991	294,936	567,402	36,094	26,460
Third Quarter	37,749,874	15,539,241	12,079,747	9,125,880	293,570	639,798	41,924	29,714
Fourth Quarter	30,454,742	11,580,526	9,873,318	8,065,655	295,876	568,891	37,206	33,271
Total	**$128,352,364**	**$50,473,795**	**$41,236,932**	**$32,849,549**	**$1,181,298**	**$2,344,289**	**$150,151**	**$116,350**
YEAR—1987r								
First Quarter	$ 29,191,233	$11,800,957	$ 9,036,665	$ 7,431,625	$ 297,824	$ 549,082	$ 38,253	$ 36,828
Second Quarter	29,218,560	10,756,656	9,518,678	7,990,445	309,364	568,263	36,243	38,911
Third Quarter	35,718,875	14,535,734	11,393,379	8,780,918	293,624	641,314	37,062	36,844
Fourth Quarter	29,184,191	10,868,726	9,488,438	7,907,738	297,601	562,040	35,778	23,871
Total	**$123,312,860**	**$47,962,072**	**$39,437,160**	**$32,110,727**	**$1,198,413**	**$2,320,698**	**$147,336**	**$136,454**
YEAR—1986								
First Quarter	$ 29,895,007	$11,835,967	$ 9,061,657	$ 8,028,150	$ 304,671	$ 578,054	$ 42,513	$ 43,995
Second Quarter	28,374,923	10,096,138	9,292,294	8,064,825	285,522	563,399	37,802	34,943
Third Quarter	34,075,844	13,538,755	10,889,298	8,642,478	298,067	624,166	38,258	44,822
Fourth Quarter	28,728,696	10,771,084	9,139,116	7,882,870	289,695	568,473	38,272	39,186
Total	**$121,074,470**	**$46,241,943**	**$38,382,364**	**$32,618,323**	**$1,177,956**	**$2,334,092**	**$156,846**	**$162,947**
YEAR—1985								
First Quarter	$ 29,132,718	$11,519,273	$ 8,657,938	$ 8,031,567	$ 296,484	$ 548,544	$ 40,254	$ 38,660
Second Quarter	28,019,118	9,807,508	8,969,446	8,322,627	282,255	565,360	35,839	33,082
Third Quarter	33,012,579	12,802,412	10,512,910	8,721,651	292,695	605,980	41,028	35,903
Fourth Quarter	28,671,857	10,522,068	9,101,226	8,128,371	288,267	562,899	40,608	28,418
Total	**$118,836,272**	**$44,651,261**	**$37,241,520**	**$33,204,216**	**$1,159,701**	**$2,285,783**	**$157,728**	**$136,064**
YEAR—1984								
First Quarter	$ 27,321,801	$10,829,722	$ 7,998,735	$ 7,630,116	$ 280,121	$ 519,634	$ 35,810	$ 27,663
Second Quarter	26,600,968	9,408,608	8,205,744	8,135,552	270,379	518,066	33,850	28,768
Third Quarter	31,898,162	12,288,788	9,991,921	8,685,978	285,971	574,043	36,426	35,036
Fourth Quarter	27,517,146	9,947,714	8,523,932	8,153,364	282,807	532,386	36,493	40,449
Total	**$113,338,077**	**$42,474,833**	**$34,720,332**	**$32,605,010**	**$1,119,279**	**$2,144,129**	**$142,578**	**$131,916**
YEAR—1983								
First Quarter	$ 24,197,183	$ 9,451,950	$ 7,191,709	$ 6,779,800	$ 269,635	$ 447,831	$ 32,830	$ 23,429
Second Quarter	23,452,710	8,344,018	7,251,119	7,105,060	251,833	446,320	28,241	26,119
Third Quarter	29,852,953	12,040,777	9,126,140	7,853,722	267,184	507,602	30,003	27,525
Fourth Quarter	25,362,375	9,230,736	7,767,693	7,536,732	269,220	497,304	35,226	25,464
Total	**$102,865,220**	**$39,067,481**	**$31,336,661**	**$29,275,314**	**$1,057,872**	**$1,899,057**	**$126,300**	**$102,536**

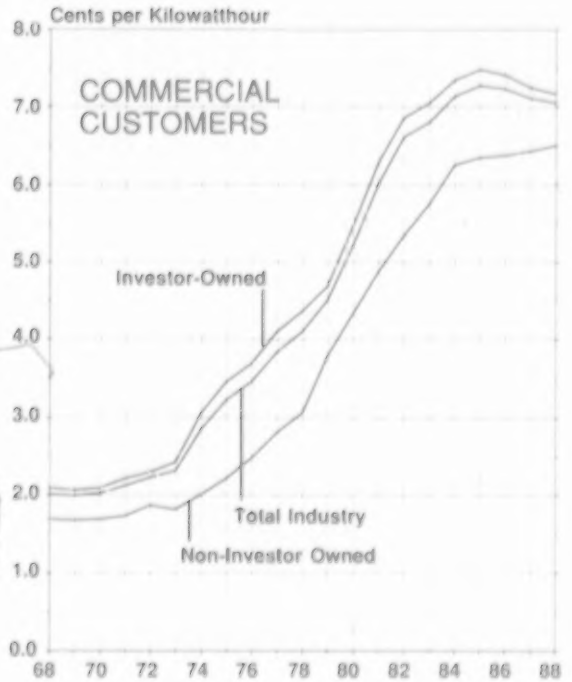
Note: Total may not equal sum of components due to independent rounding.
p Preliminary r Revised.

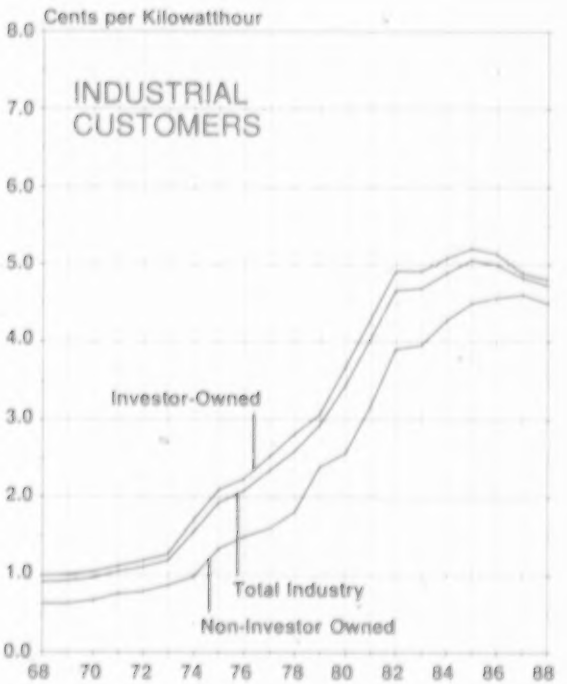
CHART VIII-C

AVERAGE REVENUES PER KWH SOLD









Based on sales data in Tables 38 and 39, page 44, and revenue data in Tables 56 and 57, page 65.

TABLE 63

AVERAGE REVENUES PER KILOWATTHOUR SOLD TOTAL ELECTRIC UTILITY INDUSTRY

CENTS PER KILOWATTHOUR

Year	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Total Ultimate Customers
1988p	**7.49¢**	**7.05¢**	**4.72¢**	**10.35¢**	**5.12¢**	**5.81¢**	**6.36¢**
1987r	7.45	7.10	4.82	10.49	5.19	6.16	6.39
1986	7.43	7.22	4.99	9.96	5.19	6.65	6.47
1985	7.39	7.27	5.04	10.08	5.09	6.66	6.47
1984	7.17	7.14	4.88	9.69	5.08	6.75	6.27
1983	6.83	6.80	4.68	9.50	5.00	6.90	6.00
1982	6.44	6.61	4.66	8.81	4.72	6.80	5.79
1981	5.86	6.00	4.03	7.96	4.18	5.67	5.16
1980	5.12	5.22	3.44	7.02	3.75	4.86	4.49
1979	4.43	4.50	2.91	6.21	3.06	4.43	3.82
1978	4.03	4.10	2.59	5.74	2.73	3.92	3.46
1977	3.78	3.84	2.33	5.39	2.69	3.46	3.21
1976	3.45	3.46	2.07	5.03	2.44	3.78	2.89
1975	3.21	3.23	1.92	4.74	2.24	3.72	2.70
1974	2.83	2.85	1.55	4.31	1.92	3.43	2.30
1973	2.38	2.30	1.17	3.83	1.47	2.20	1.86
1972	2.29	2.22	1.09	3.69	1.37	1.92	1.77
1971	2.19	2.12	1.03	3.53	1.29	1.72	1.69
1970	2.10	2.01	0.95	3.38	1.20	1.49	1.59
1969	2.09	1.99	0.91	3.25	1.16	1.39	1.54
1968	2.12	2.00	0.90	3.18	1.18	1.35	1.55

Based on sales data in Table 38 and revenue data in Table 56. p Preliminary. r Revised.

TABLE 64

AVERAGE REVENUES PER KILOWATTHOUR SOLD INVESTOR-OWNED ELECTRIC UTILITIES

CENTS PER KILOWATTHOUR

Year	Residential	Commercial	Industrial	Street and Highway Lighting	Other Public Authorities	Railroads and Railways	Total Ultimate Customers
1988p	**7.78¢**	**7.16¢**	**4.79¢**	**11.36¢**	**5.28¢**	**6.26¢**	**6.52¢**
1987r	7.75	7.24	4.88	11.53	5.37	6.58	6.56
1986	7.78	7.40	5.12	11.38	5.43	6.94	6.70
1985	7.79	7.47	5.20	11.22	5.25	7.00	6.72
1984	7.53	7.33	5.07	10.78	5.26	6.97	6.52
1983	7.15	7.04	4.90	10.13	5.22	6.55	6.27
1982	6.81	6.86	4.91	9.54	4.80	6.77	6.10
1981	6.19	6.28	4.29	8.55	4.36	6.20	5.45
1980	5.36	5.47	3.68	7.58	3.95	5.17	4.72
1979	4.63	4.68	3.06	6.60	3.33	3.80	3.99
1978	4.31	4.36	2.80	6.18	2.96	3.59	3.70
1977	4.06	4.10	2.52	5.79	2.90	3.68	3.44
1976	3.73	3.69	2.23	5.43	2.69	3.82	3.11
1975	3.51	3.46	2.09	5.14	2.51	3.79	2.94
1974	3.09	3.05	1.70	4.66	2.17	3.48	2.50
1973	2.54	2.42	1.26	4.12	1.61	2.22	1.97
1972	2.42	2.30	1.17	3.95	1.50	1.94	1.86
1971	2.32	2.21	1.11	3.78	1.42	1.73	1.78
1970	2.22	2.09	1.03	3.62	1.33	1.51	1.68
1969	2.21	2.06	0.99	3.51	1.29	1.40	1.63
1968	2.25	2.08	0.98	3.41	1.31	1.36	1.64

Based on sales data in Table 39 and revenue data in Table 57. p Preliminary. r Revised.

TABLE 65

AVERAGE ANNUAL REVENUE PER CUSTOMER

Year	TOTAL ELECTRIC UTILITY INDUSTRY Total Ultimate Customers	Residential	Commercial	Year	INVESTOR-OWNED ELECTRIC UTILITIES Total Ultimate Customers	Residential	Commercial
1988p	**$1,535.67**	**$710.90**	**$4,248.32**	**1988p**	**$1,585.56**	**$706.81**	**$4,638.34**
1987r	1,500.59	687.95	4,146.61	1987r	1,551.79	683.65	4,547.63
1986	1,493.81	675.17	4,126.94	1986	1,553.65	671.60	4,548.55
1985	1,481.57	658.11	4,080.42	1985	1,555.15	661.10	4,522.66
1984	1,452.62	643.75	3,939.57	1984	1,511.99	640.47	4,346.35
1983	1,348.80	601.77	3,660.14	1983	1,397.10	599.44	4,011.41
1982	1,285.29	563.09	3,452.36	1982	1,338.79	562.54	3,867.11
1981	1,188.44	517.39	3,206.52	1981	1,239.87	514.38	3,499.79
1980	1,040.22	461.81	2,848.00	1980	1,083.26	457.29	3,022.55
1979	897.17	391.30	2,394.04	1979	928.41	387.34	2,555.09
1978	807.12	356.74	2,176.91	1978	858.50	363.56	2,384.37
1977	739.86	328.99	2,031.41	1977	789.43	336.24	2,234.30
1976	646.33	288.39	1,754.26	1976	692.11	297.14	1,942.05
1975	579.03	262.26	1,579.55	1975	626.39	275.86	1,763.39
1974	493.43	223.73	1,327.40	1974	534.25	234.33	1,474.97
1973	408.14	192.35	1,096.55	1973	433.66	197.38	1,197.68
1972	371.01	176.39	988.78	1972	391.66	179.49	1,071.15
1971	336.46	161.49	888.75	1971	354.57	163.64	961.77
1970	307.36	148.58	803.54	1970	321.42	149.42	861.21
1969	285.99	137.45	735.27	1969	298.71	138.06	784.21
1968	269.59	128.53	694.31	1968	281.36	128.95	739.04

Based on revenue data in Tables 56 and 57, and average number of customers per year. p Preliminary. r Revised.

TABLE 66A
REVENUE AND USE PER TOTAL ULTIMATE CUSTOMER
BY STATE—YEAR 1988p

Division/State	Total Electric Utility Industry			Investor-Owned Electric Utilities		
	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer
Total United States	**$1,535.67**	**6.36¢**	**24,144**	**$1,585.56**	**6.52¢**	**24,325**
Maine	1,233.33	6.71	18,385	1,247.25	6.67	18,704
New Hampshire	1,335.58	8.47	15,774	1,404.30	8.48	16,556
Vermont	1,324.65	7.72	17,161	1,369.42	7.52	18,201
Massachusetts	1,373.75	7.80	17,616	1,344.16	7.67	17,534
Rhode Island	1,174.14	7.94	14,792	1,176.62	7.92	14,851
Connecticut	1,607.36	8.37	19,210	1,592.07	8.43	18,894
New England	**1,395.83**	**7.89**	**17,691**	**1,389.91**	**7.84**	**17,740**
New York	1,538.55	8.54	18,021	1,466.93	9.15	16,034
New Jersey	1,639.44	8.51	19,263	1,646.44	8.51	19,358
Pennsylvania	1,598.14	7.20	22,210	1,630.07	7.16	22,755
Middle Atlantic	**1,579.66**	**8.03**	**19,677**	**1,558.56**	**8.23**	**18,939**
Ohio	1,701.92	5.83	29,200	1,785.93	5.80	30,781
Indiana	1,624.24	5.83	27,839	1,758.21	5.71	30,804
Illinois	1,706.75	7.32	23,306	1,739.88	7.30	23,839
Michigan	1,356.49	6.53	20,786	1,392.31	6.51	21,375
Wisconsin	1,200.57	5.50	21,840	1,235.28	5.47	22,597
East North Central	**1,554.75**	**6.30**	**24,689**	**1,616.59**	**6.27**	**25,764**
Minnesota	1,284.11	5.36	23,936	1,448.47	5.01	28,904
Iowa	1,343.38	6.06	22,171	1,417.16	5.99	23,669
Missouri	1,417.99	6.54	21,681	1,618.68	6.67	24,270
North Dakota	1,288.87	5.99	21,516	1,104.29	6.08	18,152
South Dakota	1,144.87	5.98	19,140	1,207.84	6.27	19,264
Nebraska	1,167.74	5.30	22,047	–	–	–
Kansas	1,451.21	6.58	22,041	1,538.69	6.41	24,003
West North Central	**1,339.59**	**6.02**	**22,268**	**1,489.40**	**6.01**	**24,787**
Delaware	1,659.62	6.57	25,241	1,835.19	6.49	28,279
Maryland	1,511.45	5.84	25,859	1,536.62	5.90	26,485
District of Columbia	2,695.34	6.14	43,902	2,695.34	6.14	43,902
Virginia	1,597.13	5.68	28,116	1,654.98	5.57	29,701
West Virginia	1,274.85	4.80	26,544	1,280.07	4.80	26,694
North Carolina	1,677.76	6.17	27,184	1,871.55	5.93	31,547
South Carolina	1,882.40	5.58	33,733	2,174.53	5.63	38,646
Georgia	1,636.59	6.22	26,310	2,025.63	6.10	33,181
Florida	1,484.69	7.03	21,116	1,506.02	6.98	21,570
South Atlantic	**1,594.29**	**6.18**	**25,792**	**1,694.83**	**6.07**	**27,902**
Kentucky	1,653.14	5.01	32,996	1,473.49	4.33	34,020
Tennessee	1,731.62	5.28	32,810	1,777.42	4.34	40,940
Alabama	1,709.40	5.50	31,054	1,839.93	5.60	32,828
Mississippi	1,575.02	6.16	25,578	1,822.09	6.30	28,904
East South Central	**1,681.07**	**5.39**	**31,200**	**1,701.70**	**5.22**	**32,606**
Arkansas	1,441.43	6.37	22,621	1,618.26	6.30	25,699
Louisiana	1,950.88	5.84	33,389	2,127.48	5.62	37,831
Oklahoma	1,307.68	5.55	23,554	1,413.45	5.19	27,226
Texas	1,737.24	5.60	31,013	1,903.88	5.41	35,209
West South Central	**1,683.84**	**5.70**	**29,562**	**1,855.82**	**5.48**	**33,850**
Montana	1,252.90	4.14	30,250	1,097.94	4.36	25,205
Idaho	1,368.90	3.69	37,052	1,420.67	3.62	39,271
Wyoming	2,008.80	4.39	45,782	2,127.82	3.99	53,295
Colorado	1,090.01	5.92	18,426	1,106.46	5.83	18,984
New Mexico	1,461.47	7.49	19,503	1,511.16	7.40	20,433
Arizona	1,891.97	7.45	25,407	1,957.18	8.25	23,722
Utah	1,519.55	6.21	24,482	1,584.39	6.33	25,019
Nevada	1,498.61	5.44	27,567	1,480.04	5.74	25,795
Mountain	**1,484.37**	**5.92**	**25,089**	**1,496.13**	**5.92**	**25,269**
Washington	1,376.70	3.45	39,920	1,153.87	4.69	24,593
Oregon	1,321.20	4.30	30,744	1,276.96	4.73	26,988
California	1,396.30	7.95	17,569	1,397.83	8.40	16,645
Pacific	**1,387.20**	**6.35**	**21,831**	**1,365.28**	**7.47**	**18,286**
Alaska	1,583.71	8.86	17,875	1,611.02	8.90	18,094
Hawaii	1,676.03	7.61	22,020	1,676.03	7.61	22,020
Alaska & Hawaii	**1,640.71**	**8.03**	**20,434**	**1,673.38**	**7.66**	**21,860**

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TABLE 66B
REVENUE AND USE PER TOTAL ULTIMATE CUSTOMER
BY STATE—YEAR 1987r

Division/State	Total Electric Utility Industry			Investor-Owned Electric Utilities		
	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer
Total United States	**$1,500.59**	**6.39¢**	**23,472**	**$1,551.79**	**6.56¢**	**23,653**
Maine	1,170.76	6.52	17,966	1,183.65	6.47	18,288
New Hampshire	1,287.52	8.32	15,474	1,359.42	8.35	16,288
Vermont	1,316.02	7.81	16,861	1,364.55	7.67	17,796
Massachusetts	1,355.92	8.00	16,949	1,348.84	7.95	16,958
Rhode Island	1,177.78	8.17	14,424	1,181.09	8.16	14,481
Connecticut	1,548.85	8.28	18,700	1,539.58	8.34	18,453
New England	**1,362.04**	**7.94**	**17,158**	**1,367.55**	**7.92**	**17,267**
New York	1,507.63	8.72	17,284	1,430.36	9.35	15,298
New Jersey	1,595.54	8.58	18,600	1,601.87	8.57	18,688
Pennsylvania	1,567.49	7.31	21,440	1,598.99	7.28	21,954
Middle Atlantic	**1,545.99**	**8.16**	**18,942**	**1,521.85**	**8.37**	**18,191**
Ohio	1,660.18	5.77	28,781	1,739.69	5.73	30,345
Indiana	1,621.97	6.05	26,804	1,759.46	5.95	29,575
Illinois	1,742.10	7.77	22,423	1,783.44	7.78	22,930
Michigan	1,305.95	6.63	19,699	1,340.79	6.65	20,172
Wisconsin	1,168.43	5.58	20,930	1,198.37	5.56	21,572
East North Central	**1,538.25**	**6.45**	**23,856**	**1,601.09**	**6.44**	**24,861**
Minnesota	1,196.69	5.35	22,355	1,325.76	4.97	26,649
Iowa	1,314.56	6.25	21,038	1,387.46	6.23	22,268
Missouri	1,384.70	6.53	21,199	1,581.01	6.66	23,755
North Dakota	1,229.20	5.94	20,682	1,048.57	5.94	17,639
South Dakota	1,068.74	5.99	17,841	1,126.10	6.28	17,942
Nebraska	1,114.59	5.29	21,072	—	—	—
Kansas	1,446.19	6.83	21,181	1,543.43	6.69	23,064
West North Central	**1,293.78**	**6.08**	**21,274**	**1,437.15**	**6.10**	**23,574**
Delaware	1,563.61	6.40	24,448	1,709.65	6.27	27,265
Maryland	1,511.10	6.00	25,170	1,537.03	5.96	25,787
District of Columbia	2,743.54	6.43	42,688	2,743.54	6.43	42,688
Virginia	1,599.49	5.78	27,683	1,668.10	5.71	29,217
West Virginia	1,264.82	5.02	25,183	1,270.16	5.02	25,322
North Carolina	1,680.76	6.19	27,131	1,891.94	6.01	31,490
South Carolina	1,902.92	5.59	34,026	2,214.81	5.65	39,186
Georgia	1,557.78	5.95	26,169	1,879.83	5.74	32,759
Florida	1,433.80	6.95	20,620	1,447.28	6.89	20,997
South Atlantic	**1,568.09**	**6.16**	**25,438**	**1,666.11**	**6.07**	**27,458**
Kentucky	1,638.91	5.18	31,625	1,492.04	4.45	33,551
Tennessee	1,829.62	5.68	32,231	1,695.24	4.38	38,738
Alabama	1,709.36	5.62	30,411	1,847.53	5.74	32,213
Mississippi	1,519.20	6.09	24,940	1,756.37	6.21	28,302
East South Central	**1,700.01**	**5.59**	**30,394**	**1,697.57**	**5.30**	**32,018**
Arkansas	1,424.30	6.45	22,082	1,595.79	6.33	25,204
Louisiana	1,910.88	5.83	32,787	2,074.55	5.54	37,452
Oklahoma	1,290.07	5.66	22,807	1,394.89	5.32	26,219
Texas	1,653.56	5.49	30,145	1,815.60	5.29	34,335
West South Central	**1,623.03**	**5.64**	**28,798**	**1,787.67**	**5.40**	**33,075**
Montana	1,147.42	3.83	29,965	1,042.20	4.17	24,985
Idaho	1,299.32	3.69	35,216	1,351.66	3.61	37,420
Wyoming	1,942.99	4.41	44,053	2,037.95	3.98	51,226
Colorado	1,041.87	5.85	17,809	1,055.37	5.77	18,301
New Mexico	1,441.60	7.54	19,120	1,470.92	7.40	19,875
Arizona	1,805.29	7.29	24,763	1,887.31	8.16	23,127
Utah	1,494.28	6.50	22,985	1,553.55	6.72	23,135
Nevada	1,434.67	5.23	27,414	1,411.63	5.53	25,542
Mountain	**1,422.17**	**5.85**	**24,315**	**1,437.74**	**5.89**	**24,416**
Washington	1,238.79	3.31	37,460	1,116.06	4.65	23,984
Oregon	1,302.83	4.39	29,662	1,294.11	4.95	26,163
California	1,340.75	7.73	17,347	1,353.35	8.28	16,337
Pacific	**1,323.10**	**6.23**	**21,246**	**1,326.84**	**7.40**	**17,926**
Alaska	1,578.80	8.86	17,811	1,843.29	9.18	20,086
Hawaii	1,761.50	8.26	21,326	1,761.50	8.26	21,326
Alaska & Hawaii	**1,690.56**	**8.47**	**19,961**	**1,764.66**	**8.29**	**21,278**

r Revised.

TABLE 67A
REVENUE AND USE PER RESIDENTIAL CUSTOMER
BY STATE – YEAR 1988p

Division/State	Total Electric Utility Industry			Investor-Owned Electric Utilities		
	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer
Total United States	**$710.90**	**7.49¢**	**9,495**	**$706.81**	**7.78¢**	**9,082**
Maine	590.69	8.25	7,156	592.23	8.23	7,196
New Hampshire	700.64	9.49	7,386	715.03	9.62	7,433
Vermont	638.89	7.86	8,124	649.41	7.70	8,434
Massachusetts	591.44	8.46	6,994	582.91	8.44	6,907
Rhode Island	533.68	8.63	6,182	533.24	8.62	6,188
Connecticut	742.80	9.21	8,064	748.34	9.25	8,089
New England	**637.14**	**8.72**	**7,309**	**637.46**	**8.73**	**7,299**
New York	637.52	10.49	6,076	643.00	10.75	5,979
New Jersey	714.11	9.80	7,285	714.32	9.81	7,285
Pennsylvania	729.62	8.76	8,329	729.87	8.74	8,352
Middle Atlantic	**684.49**	**9.66**	**7,086**	**686.74**	**9.76**	**7,037**
Ohio	712.91	7.58	9,404	718.68	7.70	9,333
Indiana	738.81	7.05	10,473	721.35	7.01	10,291
Illinois	773.04	9.78	7,903	765.69	9.93	7,710
Michigan	516.61	7.30	7,075	521.82	7.29	7,154
Wisconsin	557.41	6.68	8,344	543.95	6.72	8,098
East North Central	**669.71**	**7.88**	**8,497**	**667.19**	**7.99**	**8,349**
Minnesota	590.42	6.78	8,713	514.48	6.63	7,764
Iowa	720.18	7.64	9,425	681.87	7.93	8,597
Missouri	745.82	7.33	10,172	773.44	7.63	10,132
North Dakota	711.81	6.22	11,445	585.12	6.13	9,552
South Dakota	704.21	6.81	10,341	613.33	7.25	8,465
Nebraska	620.60	5.95	10,424	–	–	–
Kansas	717.07	7.83	9,159	732.18	7.71	9,498
West North Central	**685.94**	**7.12**	**9,635**	**673.23**	**7.42**	**9,078**
Delaware	786.52	8.34	9,432	814.32	8.56	9,508
Maryland	748.86	6.72	11,150	741.23	6.69	11,082
District of Columbia	490.77	6.28	7,819	490.77	6.28	7,819
Virginia	839.49	6.60	12,717	834.05	6.48	12,864
West Virginia	605.20	5.93	10,214	606.04	5.92	10,240
North Carolina	885.34	7.38	11,990	897.68	7.25	12,375
South Carolina	898.27	7.11	12,635	920.57	7.15	12,867
Georgia	773.88	7.02	11,029	760.34	7.15	10,633
Florida	909.39	7.78	11,683	920.29	7.82	11,764
South Atlantic	**840.08**	**7.21**	**11,651**	**839.27**	**7.18**	**11,694**
Kentucky	658.00	5.64	11,657	609.34	5.29	11,527
Tennessee	843.87	5.71	14,790	826.47	4.87	16,981
Alabama	793.16	6.46	12,282	795.84	6.72	11,839
Mississippi	791.64	6.70	11,813	813.37	6.94	11,720
East South Central	**776.68**	**6.03**	**12,874**	**731.68**	**6.21**	**11,778**
Arkansas	785.44	7.62	10,309	789.17	7.71	10,230
Louisiana	892.05	7.13	12,513	880.25	6.96	12,641
Oklahoma	721.33	6.71	10,751	710.58	6.49	10,952
Texas	838.12	6.88	12,173	870.89	6.83	12,756
West South Central	**825.87**	**6.97**	**11,855**	**845.68**	**6.87**	**12,302**
Montana	512.84	5.42	9,460	465.33	5.41	8,605
Idaho	657.85	4.74	13,868	663.61	4.71	14,087
Wyoming	531.31	6.13	8,673	481.86	6.04	7,975
Colorado	487.12	6.94	7,016	451.39	7.07	6,382
New Mexico	561.27	9.15	6,135	568.87	8.99	6,329
Arizona	953.10	8.78	10,853	944.43	9.35	10,106
Utah	590.05	7.78	7,588	616.86	8.26	7,467
Nevada	696.16	6.10	11,395	700.42	6.16	11,371
Mountain	**661.35**	**7.28**	**9,089**	**638.74**	**7.28**	**8,770**
Washington	607.35	4.15	14,625	673.38	5.07	13,286
Oregon	613.60	4.80	12,791	613.08	5.00	12,257
California	550.16	8.69	6,332	567.12	9.01	6,298
Pacific	**563.62**	**7.00**	**8,055**	**580.76**	**7.79**	**7,457**
Alaska	785.21	9.49	8,278	817.63	8.41	9,722
Hawaii	626.56	8.83	7,096	626.56	8.83	7,096
Alaska & Hawaii	**686.91**	**9.10**	**7,546**	**634.11**	**8.81**	**7,200**

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TABLE 67B

REVENUE AND USE PER RESIDENTIAL CUSTOMER

BY STATE—YEAR 1987r

Division/State	Total Electric Utility Industry			Investor-Owned Electric Utilities		
	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer
Total United States	**$687.95**	**7.45¢**	**9,236**	**$683.65**	**7.75¢**	**8,816**
Maine	568.19	8.12	6,998	569.44	8.09	7,036
New Hampshire	669.83	9.30	7,200	686.79	9.45	7,265
Vermont	642.36	7.97	8,059	654.99	7.90	8,290
Massachusetts	574.71	8.66	6,634	574.52	8.74	6,571
Rhode Island	526.08	8.84	5,948	526.09	8.84	5,953
Connecticut	708.06	9.15	7,738	712.86	9.19	7,761
New England	**615.21**	**8.77**	**7,014**	**619.18**	**8.83**	**7,014**
New York	612.88	10.52	5,827	618.21	10.80	5,726
New Jersey	687.62	9.90	6,944	687.44	9.91	6,939
Pennsylvania	708.29	8.85	8,002	708.28	8.84	8,013
Middle Atlantic	**660.47**	**9.73**	**6,790**	**662.46**	**9.84**	**6,734**
Ohio	696.64	7.69	9,062	701.26	7.81	8,976
Indiana	734.48	7.30	10,066	718.55	7.30	9,841
Illinois	766.80	10.16	7,545	760.51	10.39	7,317
Michigan	498.35	7.31	6,815	504.89	7.34	6,883
Wisconsin	538.32	6.74	7,990	522.24	6.76	7,725
East North Central	**657.09**	**8.05**	**8,158**	**654.63**	**8.19**	**7,989**
Minnesota	548.35	6.63	8,270	461.18	6.32	7,294
Iowa	701.75	7.82	8,978	664.57	8.22	8,085
Missouri	727.82	7.37	9,872	754.71	7.68	9,831
North Dakota	668.10	6.31	10,595	548.93	6.28	8,737
South Dakota	661.88	6.83	9,685	574.97	7.32	7,853
Nebraska	593.17	5.92	10,020	–	–	–
Kansas	704.17	8.06	8,738	719.52	7.99	9,004
West North Central	**660.17**	**7.16**	**9,217**	**646.16**	**7.49**	**8,632**
Delaware	743.13	8.26	8,994	763.03	8.47	9,008
Maryland	736.16	6.88	10,702	728.45	6.85	10,634
District of Columbia	497.44	6.53	7,617	497.44	6.53	7,617
Virginia	832.50	6.66	12,495	835.06	6.60	12,645
West Virginia	598.96	6.09	9,842	599.92	6.08	9,867
North Carolina	880.67	7.31	12,045	905.16	7.26	12,470
South Carolina	909.71	7.17	12,686	942.89	7.23	13,048
Georgia	749.61	6.77	11,070	718.41	6.70	10,726
Florida	879.79	7.69	11,435	886.73	7.72	11,490
South Atlantic	**824.01**	**7.17**	**11,494**	**823.07**	**7.15**	**11,518**
Kentucky	648.06	5.72	11,329	612.70	5.49	11,168
Tennessee	836.44	5.69	14,708	799.64	4.88	16,375
Alabama	796.52	6.57	12,127	807.75	6.82	11,850
Mississippi	766.03	6.57	11,668	783.25	6.75	11,600
East South Central	**768.54**	**6.05**	**12,699**	**731.79**	**6.30**	**11,620**
Arkansas	783.95	7.67	10,221	788.10	7.71	10,228
Louisiana	890.21	7.14	12,469	862.06	6.84	12,608
Oklahoma	702.76	6.74	10,434	692.75	6.53	10,604
Texas	795.13	6.72	11,826	826.27	6.66	12,401
West South Central	**796.83**	**6.88**	**11,587**	**812.37**	**6.75**	**12,031**
Montana	482.86	5.23	9,231	439.18	5.19	8,457
Idaho	618.86	4.62	13,405	621.38	4.57	13,583
Wyoming	516.64	6.14	8,414	468.92	6.05	7,750
Colorado	469.67	6.86	6,850	436.29	7.00	6,234
New Mexico	554.51	9.11	6,088	558.01	8.91	6,264
Arizona	905.02	8.57	10,557	909.40	9.24	9,846
Utah	586.31	7.95	7,373	612.42	8.51	7,196
Nevada	656.97	5.83	11,275	661.39	5.87	11,272
Mountain	**632.76**	**7.15**	**8,854**	**613.70**	**7.18**	**8,547**
Washington	583.16	4.13	14,117	646.67	5.02	12,891
Oregon	591.41	4.82	12,276	594.65	5.07	11,738
California	499.23	8.03	6,215	515.29	8.30	6,206
Pacific	**519.10**	**6.60**	**7,861**	**534.35**	**7.31**	**7,312**
Alaska	788.86	9.59	8,225	974.62	8.47	11,501
Hawaii	661.15	9.43	7,009	661.15	9.43	7,009
Alaska & Hawaii	**710.53**	**9.50**	**7,479**	**672.86**	**9.38**	**7,176**

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TABLE 68A
REVENUE AND USE PER COMMERCIAL CUSTOMER
BY STATE—YEAR 1988p

Division/State	Total Electric Utility Industry			Investor-Owned Electric Utilities		
	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer
Total United States	**$ 4,248.32**	**7.05¢**	**60,263**	**$ 4,638.34**	**7.16¢**	**64,746**
Maine	2,873.19	7.09	40,498	2,949.41	7.07	41,721
New Hampshire	2,524.08	8.65	29,171	2,572.10	8.67	29,659
Vermont	3,619.63	8.28	43,737	4,088.59	8.19	49,921
Massachusetts	5,097.07	7.68	66,367	5,266.17	7.56	69,660
Rhode Island	4,240.89	7.66	55,387	4,266.69	7.65	55,785
Connecticut	6,887.24	8.32	82,778	7,104.79	8.29	85,653
New England	**4,794.32**	**7.89**	**60,743**	**4,959.44**	**7.82**	**63,423**
New York	5,683.69	9.62	59,060	5,770.12	9.70	59,492
New Jersey	5,709.94	8.41	67,893	5,760.00	8.40	68,561
Pennsylvania	4,131.22	7.67	53,893	4,185.52	7.66	54,628
Middle Atlantic	**5,217.06**	**8.78**	**59,444**	**5,290.30**	**8.81**	**60,050**
Ohio	4,699.04	6.99	67,220	5,010.31	7.01	71,517
Indiana	3,935.11	6.26	62,841	4,290.17	6.20	69,199
Illinois	5,258.48	7.59	69,306	5,318.79	7.61	69,924
Michigan	4,002.38	7.55	52,990	4,082.81	7.66	52,629
Wisconsin	3,177.91	6.00	52,927	3,585.57	6.02	59,520
East North Central	**4,371.42**	**7.04**	**62,053**	**4,601.88**	**7.07**	**65,086**
Minnesota	2,514.22	5.87	42,830	2,280.50	5.67	40,229
Iowa	2,628.46	6.67	39,380	2,848.86	6.73	42,312
Missouri	4,649.62	6.50	71,515	5,474.64	6.64	82,495
North Dakota	2,250.99	7.43	30,292	1,751.11	8.32	21,038
South Dakota	2,703.61	6.42	42,094	2,874.78	6.53	44,033
Nebraska	2,470.31	5.71	43,271	–	–	–
Kansas	3,754.00	6.62	56,705	4,734.16	6.35	74,550
West North Central	**3,277.36**	**6.38**	**51,382**	**3,770.81**	**6.48**	**58,218**
Delaware	5,072.57	6.86	73,913	5,895.41	6.78	86,942
Maryland	4,072.78	6.52	62,485	4,131.51	6.51	63,434
District of Columbia	12,191.04	6.62	184,204	12,191.04	6.62	184,204
Virginia	4,498.71	5.75	78,246	4,890.13	5.66	86,323
West Virginia	2,851.96	5.44	52,417	2,866.44	5.43	52,759
North Carolina	3,618.38	6.17	58,689	3,738.48	6.03	61,977
South Carolina	3,491.14	6.20	56,273	3,812.08	6.17	61,739
Georgia	5,247.59	7.10	73,876	6,167.38	7.17	86,069
Florida	4,607.01	6.78	67,999	4,835.24	6.64	72,810
South Atlantic	**4,377.83**	**6.47**	**67,627**	**4,668.69**	**6.38**	**73,147**
Kentucky	2,807.66	5.45	51,533	3,050.23	5.19	58,786
Tennessee	2,067.31	6.39	32,366	3,729.89	5.18	71,952
Alabama	3,172.19	6.62	47,942	3,742.85	6.63	56,490
Mississippi	3,510.28	7.00	50,148	4,270.16	6.99	61,114
East South Central	**2,800.50**	**6.33**	**44,234**	**3,612.83**	**6.18**	**58,466**
Arkansas	3,297.16	6.58	50,139	3,715.87	6.39	58,147
Louisiana	4,577.80	6.88	66,551	5,181.23	6.75	76,804
Oklahoma	3,129.90	5.84	53,620	3,724.36	5.49	67,860
Texas	4,168.01	6.06	68,729	4,635.34	5.92	78,311
West South Central	**4,004.89**	**6.19**	**64,695**	**4,531.87**	**6.03**	**75,148**
Montana	2,211.48	4.80	46,072	2,248.07	4.64	48,464
Idaho	2,868.44	4.12	69,634	2,892.17	4.08	70,949
Wyoming	2,881.63	5.32	54,138	2,503.65	5.02	49,878
Colorado	3,831.98	5.74	66,742	4,865.54	5.50	88,461
New Mexico	3,988.61	8.32	47,914	4,901.85	8.48	57,778
Arizona	6,491.65	7.97	81,438	6,436.33	8.84	72,826
Utah	5,310.62	6.90	77,005	5,748.45	7.32	78,527
Nevada	3,344.74	6.00	55,764	3,361.29	6.12	54,906
Mountain	**4,218.78**	**6.46**	**65,323**	**4,483.25**	**6.45**	**69,527**
Washington	3,017.93	3.95	76,327	3,657.21	4.93	74,148
Oregon	3,212.08	4.80	66,953	3,399.47	5.15	66,002
California	4,506.35	8.54	52,748	4,698.76	8.81	53,327
Pacific	**4,196.64**	**7.35**	**57,077**	**4,487.53**	**7.98**	**56,233**
Alaska	5,453.79	8.38	65,065	3,426.97	11.12	30,827
Hawaii	3,856.02	8.74	44,134	3,856.02	8.74	44,134
Alaska & Hawaii	**4,481.73**	**8.56**	**52,331**	**3,839.25**	**8.80**	**43,614**

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TABLE 68B

REVENUE AND USE PER COMMERCIAL CUSTOMER

BY STATE – YEAR 1987r

Division/State	Total Electric Utility Industry			Investor-Owned Electric Utilities		
	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer	Avg. Annual Revenue per Customer	Avg. Revenue per kWh Sold	Avg. Annual kWh Use per Customer
Total United States	**$4,146.61**	**7.10¢**	**58,409**	**$4,547.63**	**7.24¢**	**62,801**
Maine	2,814.20	6.89	40,816	2,891.85	6.87	42,093
New Hampshire	2,467.51	8.55	28,845	2,528.94	8.59	29,429
Vermont	3,584.46	8.28	43,270	4,086.13	8.24	49,612
Massachusetts	5,149.33	7.93	64,945	5,360.26	7.85	68,271
Rhode Island	4,233.65	7.90	53,616	4,262.88	7.89	54,028
Connecticut	6,779.39	8.24	82,247	6,946.19	8.23	84,405
New England	**4,779.50**	**7.99**	**59,845**	**4,964.37**	**7.94**	**62,525**
New York	5,665.67	9.96	56,863	5,755.24	10.05	57,282
New Jersey	5,572.77	8.57	65,003	5,623.26	8.56	65,678
Pennsylvania	4,019.23	7.65	52,522	4,071.26	7.65	53,223
Middle Atlantic	**5,143.23**	**8.97**	**57,334**	**5,217.46**	**9.01**	**57,921**
Ohio	4,633.83	7.07	65,582	4,937.54	7.08	69,701
Indiana	3,950.82	6.45	61,231	4,331.04	6.40	67,667
Illinois	5,415.30	8.10	66,839	5,504.86	8.16	67,448
Michigan	3,929.30	7.59	51,756	3,970.56	7.73	51,392
Wisconsin	3,095.14	6.09	50,841	3,499.07	6.11	57,258
East North Central	**4,370.80**	**7.25**	**60,254**	**4,614.97**	**7.30**	**63,220**
Minnesota	2,346.85	5.87	39,953	2,106.40	5.65	37,256
Iowa	2,594.74	6.91	37,567	2,811.73	7.00	40,155
Missouri	4,526.37	6.49	69,776	5,353.90	6.63	80,780
North Dakota	2,218.41	6.68	33,196	1,767.36	6.62	26,688
South Dakota	2,502.24	6.50	38,492	2,710.22	6.60	41,066
Nebraska	2,341.98	5.69	41,145	–	–	–
Kansas	3,763.70	6.88	54,670	4,807.93	6.65	72,266
West North Central	**3,176.87**	**6.44**	**49,360**	**3,683.19**	**6.55**	**56,230**
Delaware	4,836.89	6.70	72,234	5,561.40	6.58	84,457
Maryland	4,114.71	6.73	61,169	4,176.87	6.72	62,140
District of Columbia	12,391.52	6.93	178,745	12,391.52	6.93	178,745
Virginia	4,547.25	5.89	77,258	4,912.91	5.82	84,441
West Virginia	2,891.03	5.62	51,430	2,906.37	5.61	51,769
North Carolina	3,620.22	6.25	57,885	3,761.10	6.16	61,008
South Carolina	3,545.45	6.28	56,420	3,848.79	6.27	61,424
Georgia	4,866.31	6.74	72,155	5,545.58	6.71	82,645
Florida	4,305.18	6.70	64,280	4,622.98	6.51	70,973
South Atlantic	**4,246.29**	**6.46**	**65,717**	**4,548.10**	**6.37**	**71,452**
Kentucky	2,785.98	5.55	50,181	3,056.26	5.36	56,992
Tennessee	2,214.96	6.32	35,030	3,712.11	5.17	71,779
Alabama	3,191.24	6.68	47,753	3,778.03	6.70	56,373
Mississippi	3,358.26	6.89	48,759	4,034.78	6.86	58,817
East South Central	**2,823.46**	**6.34**	**44,515**	**3,580.20**	**6.25**	**57,298**
Arkansas	3,263.22	6.56	49,712	3,680.84	6.35	58,001
Louisiana	4,350.63	6.77	64,286	4,862.33	6.57	74,046
Oklahoma	3,119.94	5.98	52,193	3,717.40	5.66	65,735
Texas	3,902.55	5.90	66,117	4,378.10	5.75	76,097
West South Central	**3,801.78**	**6.08**	**62,512**	**4,315.15**	**5.91**	**73,046**
Montana	2,097.36	4.68	44,836	2,155.36	4.49	48,053
Idaho	2,783.17	4.17	66,760	2,832.59	4.14	68,484
Wyoming	2,884.52	5.41	53,367	2,459.35	5.09	48,355
Colorado	3,533.28	5.76	61,353	4,429.29	5.50	80,520
New Mexico	3,917.94	8.37	46,799	4,815.06	8.45	56,976
Arizona	6,172.43	7.79	79,242	6,212.57	8.61	72,155
Utah	5,291.64	7.05	75,057	5,711.97	7.59	75,209
Nevada	3,251.96	5.88	55,278	3,292.95	5.98	55,033
Mountain	**4,033.40**	**6.44**	**62,673**	**4,303.25**	**6.43**	**66,918**
Washington	2,947.65	3.93	74,993	3,620.33	4.91	73,689
Oregon	3,284.31	5.02	65,386	3,517.08	5.46	64,370
California	4,313.96	8.57	50,360	4,540.42	8.97	50,630
Pacific	**4,042.21**	**7.36**	**54,926**	**4,363.59**	**8.10**	**53,848**
Alaska	5,414.15	9.31	65,189	4,042.52	12.77	31,656
Hawaii	3,967.02	9.41	42,147	3,967.02	9.41	42,147
Alaska & Hawaii	**4,535.96**	**8.86**	**51,206**	**3,969.80**	**9.51**	**41,760**

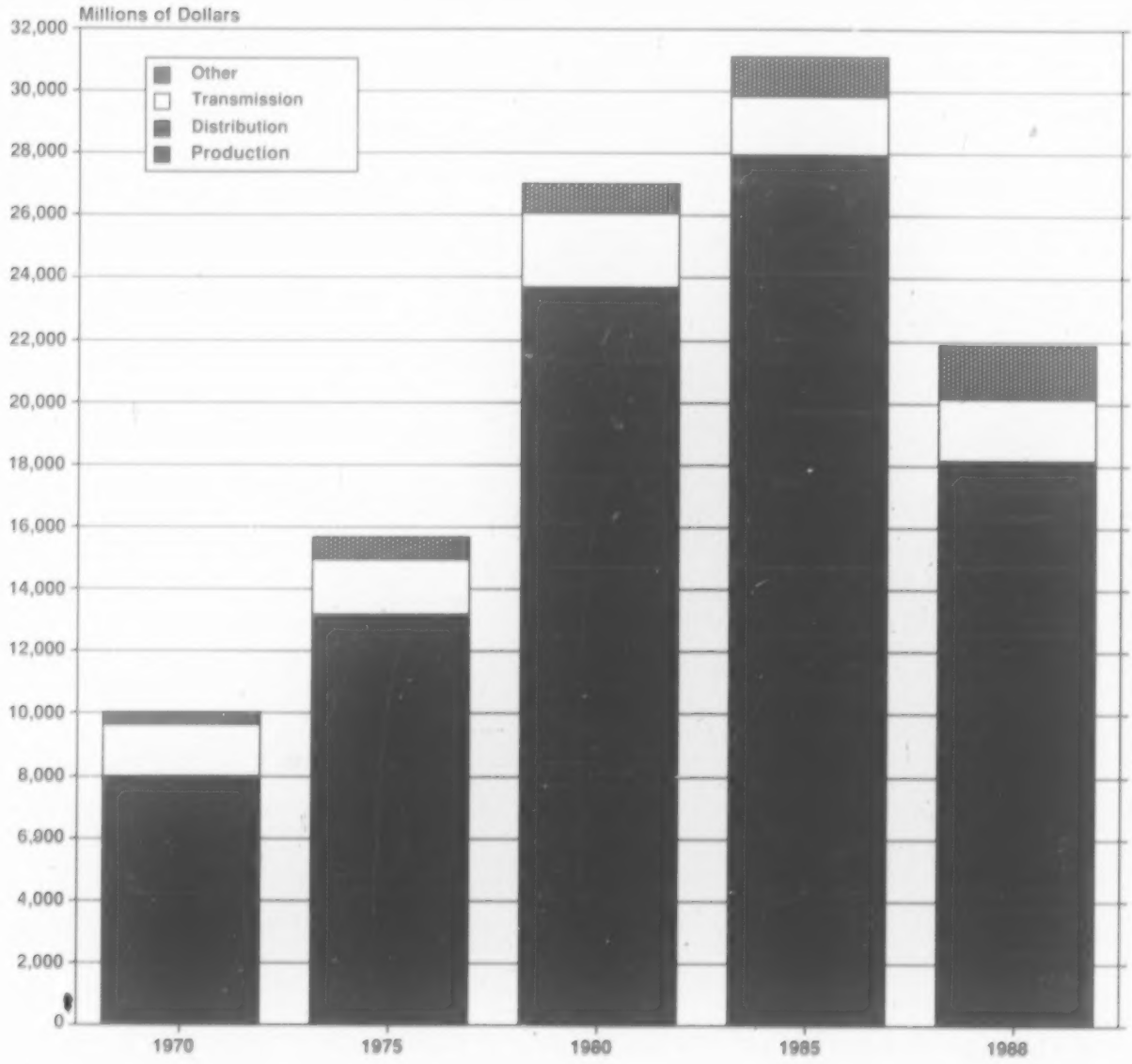
r Revised.

FINANCIAL
SECTION IX

CHART IX-A

CONSTRUCTION EXPENDITURES

INVESTOR-OWNED ELECTRIC UTILITIES



Based on Table 69, page 83

TABLE 69
CONSTRUCTION EXPENDITURES
INVESTOR-OWNED ELECTRIC UTILITIES
BY TYPE OF ELECTRIC UTILITY PLANT
MILLIONS OF DOLLARS

	1988p	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Production											
Steam	$ 3,949	$ 4,478	$ 4,332	$ 4,725	$ 5,569	$ 5,860	$ 7,828	$ 7,221	$ 7,498	$ 7,572	$ 6,664
Nuclear	5,273	9,239	13,426	15,553	17,478	18,208	16,461	12,785	11,045	9,855	8,813
Other	778	678	724	1,095	893	868	1,050	906	695	854	655
Total	**10,000**	**14,395**	**18,483**	**21,372**	**23,939**	**24,935**	**25,339**	**20,912**	**19,238**	**18,281**	**16,132**
Transmission	1,953	2,066	1,761	1,863	2,250	2,371	2,203	2,270	2,353	2,090	1,738
Distribution	8,175	7,457	7,248	6,590	5,899	5,021	4,827	4,606	4,483	4,334	3,875
General/Miscellaneous*	1,725	1,585	1,808	1,266	1,355	1,489	1,233	1,336	937	776	1,192
Subtotal	**21,854**	**25,503**	**29,299**	**31,091**	**33,443**	**33,816**	**33,602**	**29,124**	**27,011**	**25,481**	**22,937**
Nuclear Fuel	1,780	1,532	1,724	2,202	1,842	1,749	1,748	1,566	1,324	1,338	1,093
GRAND TOTAL	**$23,634**	**$27,035**	**$31,023**	**$33,294**	**$35,285**	**$35,565**	**$35,350**	**$30,690**	**$28,335**	**$26,819**	**$24,030**
AFUDC included in TOTAL	$ 2,690	$ 4,579	$ 5,659	$ 6,941	$ 7,923	$ 7,816	$ 6,612	$ 5,358	$ 4,365	$ 3,593	$ 2,717

	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968
Production										
Steam	$ 6,529	$ 5,689	$ 5,062	$ 5,323	$ 4,923	$ 4,306	$ 3,507	$ 2,790	$ 2,227	$ 2,076
Nuclear	7,273	5,815	4,545	3,969	3,270	2,920	2,410	1,641	1,120	679
Other	614	460	487	802	662	691	620	818	550	347
Total	**14,416**	**11,964**	**10,094**	**10,094**	**8,855**	**7,917**	**6,537**	**5,249**	**3,897**	**3,102**
Transmission	1,687	1,832	1,771	2,145	1,878	1,749	1,818	1,625	1,555	1,378
Distribution	3,390	2,974	3,075	3,538	3,568	3,192	2,869	2,751	2,511	2,299
General/Miscellaneous*	788	590	710	880	758	605	633	422	394	339
Subtotal	**20,281**	**17,360**	**15,650**	**16,702**	**15,059**	**13,463**	**11,857**	**10,047**	**8,357**	**7,118**
Nuclear Fuel	1,016	798	541	490	232	265	361	217	N/A	N/A
GRAND TOTAL	**$21,297**	**$18,158**	**$16,191**	**$17,192**	**$15,291**	**$13,728**	**$12,218**	**$10,264**	**$ 8,357**	**$ 7,118**
AFUDC included in TOTAL	$ 2,267	$ 1,854	$ 1,676	$ 1,576	$ 1,277	$ 1,078	$ 809	$ 583	$ 398	$ 270

Note: Total may not equal sum of components due to independent rounding.
This table has been restructured based on data submitted to the Institute. Data, compiled on a 50 state basis, now includes nuclear fuel and reflects the amount of AFUDC in the total.
Construction expenditures are, in general, the gross amounts spent for construction of all kinds, including the acquisition of real estate and all necessary equipment.
The figures include money spent for replacements, additions, and betterments (but not for maintenance of existing plant) as well as for new construction.
**Includes intangible plant.*
p Preliminary. N/A Not Available.

TABLE 70

COMBINED BALANCE SHEETS – YEAR ENDED DECEMBER 31ST
INVESTOR-OWNED ELECTRIC UTILITIES

INTERCOMPANY TRANSACTIONS ELIMINATED
MILLIONS OF DOLLARS

	1988p	1987	1986	1985	1984	1983
ASSETS						
Utility Plant						
Electric	$415,470	$387,154	$348,400	$317,392	$277,374	$252,294
Other	22,345	21,886	21,698	18,954	18,219	17,745
Total Utility Plant	**437,815**	**409,039**	**370,097**	**336,345**	**295,592**	**270,039**
Accumulated Provision for Depreciation and Amortization	123,517	112,029	102,243	92,567	84,306	77,073
Net Utility Plant	**314,298**	**297,011**	**267,854**	**243,778**	**211,285**	**192,967**
Nuclear Fuel	19,518	18,440	15,009	13,979	11,587	9,421
Accumulated Provision for Amortization of Nuclear Fuel Assemblies	10,374	8,697	6,466	5,461	4,219	3,755
Net Nuclear Fuel	**9,144**	**9,744**	**8,543**	**8,518**	**7,368**	**5,665**
Construction Work in Progress	39,914	51,510	74,978	84,092	95,491	93,619
NetTotal Utility Plant	**363,356**	**358,264**	**351,375**	**336,389**	**314,145**	**292,250**
Other Property and Investment	16,212	15,174	11,887	9,557	9,359	8,367
Total Current and Accrued Assets	41,116	41,515	38,824	40,427	37,823	33,196
Total Deferred Debits	27,792	24,916	21,635	16,194	18,065	12,001
Total Assets	**$448,477**	**$439,869**	**$423,722**	**$402,567**	**$379,392**	**$345,814**
CAPITALIZATION AND LIABILITIES						
Capitalization						
Common Capital Stock	$ 58,351	$ 53,367	$ 51,658	$ 51,556	$ 47,842	$ 44,742
Other Paid-In Capital Excluding Retained Earnings*	35,891	37,006	37,366	34,036	33,886	31,580
Retained Earnings*	48,324	50,904	49,362	43,902	40,423	35,369
Total Common Capital Stock Equity	**142,567**	**141,277**	**138,386**	**129,495**	**122,151**	**111,691**
Preferred Stock	25,394	26,661	27,947	30,614	29,882	29,479
Long-Term Debt						
Mortgage Bonds	118,711	115,358	115,370	111,763	108,997	104,244
Other Long-Term Debt	42,465	40,824	38,058	37,180	32,696	28,034
Total Long-Term Debt	**161,176**	**156,181**	**153,428**	**148,944**	**141,693**	**132,278**
Total Capitalization	**329,137**	**324,120**	**319,761**	**309,052**	**293,727**	**273,448**
Total Other Non-Current Liabilities	6,466	6,648	5,102	3,278	N/A	N/A
Total Current and Accrued Liabilities	44,481	44,715	40,419	38,718	36,851	33,898
Contribution in Aid of Construction	157	174	160	156	145	135
Deferred Income Taxes	43,178	39,535	35,465	29,853	26,438	21,075
Deferred Investment Tax Credits	16,552	16,983	16,760	15,931	14,136	12,059
Other Deferred Credits**	8,506	7,695	6,055	5,578	8,096	5,199
Total Liabilities	**$448,477**	**$439,869**	**$423,722**	**$402,567**	**$379,392**	**$345,814**

Note: Total may not equal sum of components due to independent rounding. Data for prior years do not reflect restatements. Data based on reports as submitted by electric utilities, some of which report on a consolidated basis.
Data comprising "Net Total Utility Plant" has been reformatted to reflect changes made to Schedule VI of the Uniform Statistical Report. Previous years data have been revised for comparability.
N/A Not Applicable.
**Includes Premium on Common and Preferred Stock.*
***Data for 1984-1983 include Operating Reserves. Beginning 1985 "Total Other Non-Current Liabilities", which includes FERC System of Accounts 227, 228, and 229, is shown as a separate item.*
p Preliminary.

TABLE 71

COMBINED INCOME STATEMENTS – YEAR ENDED DECEMBER 31ST INVESTOR-OWNED ELECTRIC UTILITIES

INTERCOMPANY TRANSACTIONS ELIMINATED
MILLIONS OF DOLLARS

	1988p	1987	1986	1985	1984	1983
	ELECTRIC DEPARTMENT ONLY					
Operating Revenues	**$134,556**	**$129,437**	**$127,552**	**$125,547**	**$120,090**	**$109,446**
Operating Expenses:						
Operation	63,270	59,693	57,975	61,109	59,679	55,315
Maintenance	10,913	10,304	9,688	9,191	8,482	7,577
Depreciation and Depletion	13,325	12,064	10,623	9,736	8,792	8,016
Amortization Charged to Operation	368	254	130	196	139	117
Property Losses Charged to Operation	398	396	412	370	318	237
Deferred Expenses	(930)	(1,110)	N/A	N/A	N/A	N/A
Taxes Other Than Income Taxes	10,362	9,766	9,390	8,902	8,507	7,790
Federal Income Taxes	4,952	5,884	5,877	4,637	3,857	2,845
State Income Taxes	873	827	807	712	705	566
Deferred Income Taxes:						
Property Related	2,924	4,314	4,899	4,069	3,283	2,746
Non-Property Related	(490)	(551)	352	464	1,418	1,748
Investment Tax Credit Adjustments	(200)	588	1,209	1,964	2,113	1,828
Total Operating Expenses	**105,765**	**102,429**	**101,360**	**101,350**	**97,294**	**88,788**
Operating Income	$ 28,790	$ 27,008	$ 26,191	$ 24,197	$ 22,796	$ 20,658
	ALL DEPARTMENTS					
Operating Revenues	**$150,733**	**$144,569**	**$144,939**	**$144,642**	**$139,499**	**$129,785**
Operating Expenses:						
Operation	75,269	71,018	71,075	75,931	74,787	71,947
Maintenance	11,429	10,795	10,189	9,666	8,932	8,012
Depreciation and Depletion	14,143	12,848	11,416	10,447	9,476	8,609
Amortization Charged to Operation	527	350	274	295	228	187
Property Losses Charged to Operation	411	423	452	382	339	280
Deferred Expenses	(936)	(1,117)	N/A	N/A	N/A	N/A
Taxes Other Than Income Taxes	11,300	10,701	10,372	9,880	9,477	8,746
Federal Income Taxes	5,502	6,144	6,122	5,000	4,363	2,973
State Income Taxes	1,085	871	843	796	806	621
Deferred Income Taxes:						
Property Related	3,129	4,455	5,062	4,209	3,351	2,894
Non-Property Related	(602)	(569)	446	483	1,345	1,854
Investment Tax Credit Adjustments	(204)	575	1,244	2,027	2,218	1,911
Total Operating Expenses	**121,050**	**116,492**	**117,494**	**119,115**	**115,325**	**108,036**
Operating Income	29,683	28,077	27,444	25,530	24,174	21,749
Other Income (Non-Operating) Net	406	1,510	2,459	2,313	2,135	1,736
Allowance for Other Funds Used During Construction	1,556	3,190	4,189	5,098	5,155	4,980
Income Before Interest Charges (Gross Income)	**31,645**	**32,777**	**34,093**	**32,942**	**31,465**	**28,466**
Interest Charges:						
Interest on Long-Term Debt	14,443	14,317	14,711	14,470	13,540	12,430
Interest on Short-Term Debt	572	492	372	504	595	536
Amortization of Debt Discount Expense and Premium	268	229	193	131	98	106
Other Interest Expense	400	392	553	465	600	587
Allowance for Borrowed Funds Used During Construction – Credit	(1,235)	(1,824)	(2,286)	(2,777)	(3,061)	(3,009)
Total Interest Charges	14,448	13,605	13,544	12,794	11,771	10,649
Income Before Extraordinary Items	**17,197**	**19,172**	**20,549**	**20,148**	**19,694**	**17,816**
Extraordinary Items	(1,431)*	(1,127)*	(308)	(1,659)	(22)	(228)
Net Income	**15,765**	**18,045**	**20,241**	**18,489**	**19,672**	**17,589**
Preferred Dividend Charges	2,008	2,306	2,747	2,877	2,828	2,715
Available for Common Stock	13,757	15,739	17,494	15,613	16,844	14,874
Common Dividends	12,967	12,668	12,303	11,782	11,077	10,306
Net Income After Dividends	**$ 790**	**$ 3,071**	**$ 5,190**	**$ 3,830**	**$ 5,767**	**$ 4,568**

Note: Total may not equal sum of components due to independent rounding. See page 84 for footnote.
Deferred Income Taxes now shown as "Property Related" (previously shown as "Due to Liberalized Depreciation" and "Due to Accelerated Amortization") and "Non-Property Related" (previously shown as "Other Deferred Income Taxes").
*p Preliminary. ( ) Denotes credit or negative value. N/A Not Applicable. * Includes Cumulative Effects of a change in accounting principle.*

TABLE 72

DETAIL OF ELECTRIC OPERATION & MAINTENANCE EXPENSES INVESTOR-OWNED ELECTRIC UTILITIES

MILLIONS OF DOLLARS

	1988p	1987	1986	1985	1984	1983
Production	$53,868	$50,583	$49,254	$53,068	$52,288	$48,408
Transmission and Distribution	6,829	6,602	6,251	6,005	5,614	5,143
Customer Accounts	2,871	2,836	2,723	2,537	2,383	2,224
Customer Service and Information	892	855	826	760	745	643
Sales	175	140	93	65	47	37
Administrative and General	9,548	8,982	8,514	7,865	7,084	6,437
Total Operation & Maintenance Expenses	**$74,183**	**$69,998**	**$67,663**	**$70,300**	**$68,161**	**$62,892**
Cost of Fuel*	$31,421	$31,042	$31,195	$36,635	$37,697	$36,174

Note: Total may not equal sum of components due to independent rounding.
**Included in "Total Operation & Maintenance Expenses."*
p Preliminary.

TABLE 73

DETAIL OF TAXES – ELECTRIC DEPARTMENT ONLY INVESTOR-OWNED ELECTRIC UTILITIES

MILLIONS OF DOLLARS

	1988p		1987		1986	
	Amount	% of Oper Revenue	Amount	% of Oper Revenue	Amount	% of Oper Revenue
Federal Taxes						
Income	$ 4,952	3.7%	$ 5,884	4.5%	$ 5,877	4.6%
Deferred Taxes on Income*	2,727	2.0	4,116	3.2	4,610	3.6
Other Deferred Income Taxes**	(653)	N/A	(8)	N/A	1,458	1.2
Miscellaneous Taxes	1,062	0.8	918	0.7	895	0.7
Total Federal Taxes Charged to Income	8,087	6.5	10,911	8.4	12,841	10.1
State and Local Taxes	10,334	7.7	9,919	7.7	9,694	7.6
Total Taxes Charged to Income	**$18,422**	**14.2%**	**$20,829**	**16.1%**	**$22,534**	**17.7%**

	1985		1984		1983	
	Amount	% of Oper Revenue	Amount	% of Oper Revenue	Amount	% of Oper Revenue
Federal Taxes						
Income	$ 4,637	3.7%	$ 3,857	3.2%	$ 2,845	2.6%
Deferred Taxes on Income*	3,810	3.0	3,094	2.6	2,546	2.3
Other Deferred Income Taxes**	2,428	1.9	3,417	2.8	3,423	3.2
Miscellaneous Taxes	818	0.7	777	0.6	680	0.6
Total Federal Taxes Charged to Income	11,693	9.3	11,145	9.3	9,495	8.7
State and Local Taxes	9,055	7.2	8,740	7.3	8,028	7.3
Total Taxes Charged to Income	**$20,748**	**16.5%**	**$19,884**	**16.6%**	**$17,523**	**16.0%**

Note: Total may not equal sum of components due to independent rounding.
**Due to liberalized depreciation and accelerated amortization.*
***Includes investment tax credits reported as charges to income for the current year.*
p Preliminary. ( ) Denotes negative value. N/A Not applicable.

TABLE 74

CAPITALIZATION AND CAPITALIZATION RATIOS INVESTOR-OWNED ELECTRIC UTILITIES

MILLIONS OF DOLLARS

	1988p	1987	1986	1985	1984	1983
CAPITALIZATION OUTSTANDING						
Mortgage Bonds	$118,711	$115,358	$115,370	$111,763	$108,997	$104,244
Other Long-Term Debt	42,465	40,824	38,058	37,180	32,696	28,034
Total Long-Term Debt	**161,176**	**156,181**	**153,428**	**148,944**	**141,693**	**132,278**
Preferred Stock	25,394	26,661	27,947	30,614	29,882	29,479
Common Capital Stock	58,351	53,367	51,658	51,556	47,842	44,742
Other Paid-In Capital Excluding Retained Earnings*	35,891	37,006	37,366	34,036	33,886	31,580
Retained Earnings	48,324	50,904	49,362	43,902	40,423	35,369
Total Capitalization	**$329,137**	**$324,120**	**$319,761**	**$309,052**	**$293,727**	**$273,448**
CAPITALIZATION RATIOS						
Mortgage Bonds	36.1%	35.6%	36.1%	36.2%	37.1%	38.1%
Other Long-Term Debt	12.9	12.6	11.9	12.0	11.1	10.3
Total Long-Term Debt	**49.0**	**48.2**	**48.0**	**48.2**	**48.2**	**48.4**
Preferred Stock	7.7	8.2	8.7	9.9	10.2	10.8
Common Capital Stock Equity	43.3	43.6	43.3	41.9	41.6	40.8
Total Capitalization	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Note: Total may not equal sum of components due to independent rounding
**Includes Premium on Common and Preferred Stock*
p Preliminary

TABLE 75

PUBLIC UTILITY LONG-TERM FINANCING
INVESTOR-OWNED ELECTRIC UTILITIES

BY YEAR, TYPE OF ISSUE, PURPOSE AND TYPE OF UTILITY
1983-1988—THOUSANDS OF DOLLARS

	1988	1987	1986	1985	1984	1983
ELECTRIC UTILITIES						
LONG-TERM DEBT						
New Capital	$ 6,800,152	$ 8,687,727	$10,344,120	$ 9,186,802	$ 9,360,990	$ 6,831,791
Refunding	3,100,730	5,238,655	11,047,010	3,328,435	812,500	751,064
Divestment	—	—	—	—	—	—
Total Long Term Debt	9,900,882	13,926,382	21,391,130	12,517,237	10,173,490	7,582,855
PREFERRED STOCK						
New Capital	552,000	1,205,000	985,000	655,000	888,000	1,902,750
Refunding	195,500	753,000	695,600	—	—	—
Divestment	—	—	—	—	—	—
Total Preferred	747,500	1,958,000	1,680,600	655,000	888,000	1,902,750
COMMON STOCK						
New Capital	502,713	245,750	605,945	1,578,763	861,633	3,082,855
Refunding	—	—	33,750	71,250	68,500	—
Divestment	—	—	—	—	—	—
Total Common	502,713	245,750	639,695	1,650,013	930,133	3,082,855
TOTAL CAPITAL						
New Capital	7,854,865	10,138,477	11,935,065	11,422,565	11,110,623	11,817,396
Refunding	3,296,230	5,991,655	11,776,360	3,399,685	881,000	751,064
Divestment	—	—	—	—	—	—
Total Capital	$11,151,095	$16,130,132	$23,711,425	$14,822,250	$11,991,623	$12,568,460
GAS UTILITIES*						
LONG-TERM DEBT						
New Capital	$ 2,565,995	$ 2,875,301	$ 2,768,600	$ 1,382,240	$ 755,000	$ 1,210,020
Refunding	334,200	392,659	1,111,900	203,510	50,000	110,480
Divestment	—	—	—	—	—	—
Total Long Term Debt	2,900,195	3,267,960	3,880,500	1,585,750	805,000	1,320,500
PREFERRED STOCK						
New Capital	15,000	251,125	—	—	100,000	240,000
Refunding	—	155,000	—	100,000	—	—
Divestment	—	—	—	—	—	—
Total Preferred	15,000	406,125	—	100,000	100,000	240,000
COMMON STOCK						
New Capital	212,936	93,744	224,269	44,375	78,263	364,739
Refunding	—	14,000	—	—	16,591	32,975
Divestment	—	—	—	—	—	—
Total Common	212,936	107,744	224,269	44,375	94,854	397,714
TOTAL CAPITAL						
New Capital	2,793,931	3,220,170	2,992,869	1,426,615	933,263	1,814,759
Refunding	334,200	561,659	1,111,900	303,510	66,591	143,455
Divestment	—	—	—	—	—	—
Total Capital	$ 3,128,131	$ 3,781,829	$ 4,104,769	$ 1,730,125	$ 999,854	$ 1,958,214
ALL OTHER UTILITIES†						
LONG-TERM DEBT						
New Capital	$ 246,200	$ 1,057,246	$ 1,375,618	$ 851,750	$ 150,000	$ 1,131,055
Refunding	—	365,000	7,950,382	2,560,000	310,000	383,445
Divestment	—	—	—	—	—	—
Total Long Term Debt	246,200	1,422,246	9,326,000	3,411,750	460,000	1,514,500
PREFERRED STOCK						
New Capital	60,000	—	—	—	—	—
Refunding	—	—	—	—	—	—
Divestment	—	—	—	—	—	—
Total Preferred	60,000	—	—	—	—	—
COMMON STOCK						
New Capital	15,600	4,840	101,086	475,100	—	1,093,504
Refunding	—	—	—	—	—	—
Divestment	—	—	—	—	—	—
Total Common	15,600	4,840	101,086	475,100	—	1,093,504
TOTAL CAPITAL						
New Capital	321,800	1,062,086	1,476,704	1,326,850	150,000	2,224,559
Refunding	—	365,000	7,950,382	2,560,000	310,000	383,445
Divestment	—	—	—	—	—	—
Total Capital	$ 321,800	$ 1,427,086	$ 9,427,086	$ 3,886,850	$ 460,000	$ 2,608,004
TOTAL UTILITY FINANCING						
LONG-TERM DEBT						
New Capital	$ 9,612,347	$12,620,274	$14,488,338	$11,422,792	$10,265,990	$ 9,172,866
Refunding	3,434,930	5,996,314	20,109,292	6,091,945	1,172,500	1,244,989
Divestment	—	—	—	—	—	—
Total Long Term Debt	13,047,277	18,616,588	34,597,630	17,514,737	11,438,490	10,417,855
PREFERRED STOCK						
New Capital	627,000	1,456,125	985,000	655,000	988,000	2,142,750
Refunding	195,500	908,000	695,600	100,000	—	—
Divestment	—	—	—	—	—	—
Total Preferred	822,500	2,364,125	1,680,600	755,000	988,000	2,142,750
COMMON STOCK						
New Capital	731,249	344,334	931,300	2,098,238	939,896	4,541,098
Refunding	—	14,000	33,750	71,250	85,091	32,975
Divestment	—	—	—	—	—	—
Total Common	731,249	358,334	965,050	2,169,488	1,024,987	4,574,073
TOTAL CAPITAL						
New Capital	10,970,596	14,420,733	16,404,638	14,176,030	12,193,886	15,856,714
Refunding	3,630,430	6,918,314	20,838,642	6,263,195	1,257,591	1,277,964
Divestment	—	—	—	—	—	—
Total Capital	$14,601,026	$21,339,047	$37,243,280	$20,439,225	$13,451,477	$17,134,678

Classification as to type of utility is based upon predominant source of revenue. ** Includes gas pipe line companies.*

† "Other Utilities" are water, transit, telephone and telegraph, and does not include railroads.

Note: Includes negotiated sales of pollution control bonds: 1988, $1,189 million; 1987, $1,970 million; 1986, $1,570 million; 1985, $6,071 million; 1984, $4,400 million; and 1983, $1,652 million.

Source: Ebasco Business Consulting Company.

TABLE 76

WEIGHTED AVERAGE OF YIELDS ON NEWLY ISSUED DOMESTIC BONDS AND PREFERRED STOCKS

1968-1988

Year	Utility Bonds				Industrial Bonds	Preferred Stocks
	Electric and Gas	Telephone	Water Works	All Utilities		All Utilities
1988	**10.03%**	**10.05%**	**10.15%**	**10.19%**	**9.94%**	**7.38%**
1987	9.74	9.63		9.75	9.29	7.83
1986	9.61	8.96		9.45	9.38	8.26
1985	11.83	11.54	11.18	11.78	11.64	10.08
1984	14.25	12.73		13.33	12.58	13.16
1983	12.70	11.72		12.53	11.50	12.06
1982	14.93	14.23		14.56	13.65	14.42
1981	16.31	15.45		16.30	15.16	15.11
1980	13.46	12.59		13.09	11.66	12.28
1979	10.85	10.29		10.64	9.49	9.76
1978	9.30	9.07		9.22	8.98	9.03
1977	8.43	8.21		8.38	8.15	8.43
1976	8.92	8.41		8.80	8.61	9.12
1975	9.97	9.27		9.76	9.12	10.63
1974	9.59	9.22		9.21	8.87	9.95
1973	7.91	7.87		7.88	7.86	7.50
1972	7.50	7.36		7.46	7.51	7.53
1971	7.72	7.58		7.71	7.80	7.74
1970	8.79	8.75		8.85	8.86	9.01
1969	7.98	8.00		7.99	7.84	7.75
1968	6.80	6.55	7.17	6.72	6.64	6.44

Source: Moody's Investors Service

TABLE 77

MOODY'S AVERAGE YIELDS ON UTILITY BONDS AND STOCKS

BY MOODY'S BOND RATINGS AND STOCK QUALITY GROUPS

1978-1988

	BONDS					PREFERRED STOCKS			COMMON STOCKS					
		Rating				aa	a	baa	High Quality		Good Quality		Medium Quality	
End of Month	Over-all* Average	Aaa**	Aa	A	Baa	High Quality	Good Quality	Medium Quality	Yield	E/P Ratio†	Yield	E/P Ratio†	Yield	E/P Ratio†
1988														
December	10.09%	9.74%	9.97%	10.16%	10.47%	9.50%	10.06%	10.37%	6.58%	10.35%	7.45%	7.81%	8.87%	10.48%
September	10.06	9.80	9.91	10.14	10.40	9.40	9.89	10.17	6.67	10.32	7.26	9.47	9.02	10.71
June	10.70	10.25	10.50	10.78	11.25	9.28	9.89	10.09	6.58	9.89	8.12	9.57	9.19	11.15
March	10.36	9.93	10.16	10.33	11.02	9.06	9.74	10.04	6.68	10.28	8.29	10.10	9.38	12.19
1987														
December	10.91	10.55	10.65	10.94	11.49	9.35	10.24	10.45	6.68	10.38	8.60	9.60	9.54	12.06
September	11.22	10.75	10.84	11.42	11.87	9.40	10.19	10.47	6.28	10.06	7.97	9.55	8.60	12.06
June	9.86	9.59	9.55	10.02	10.46	8.66	9.13	9.75	6.23	9.58	7.81	10.03	8.57	11.14
March	8.89	8.38	8.77	9.04	9.38	7.82	8.36	8.90	6.00	9.24	6.99	8.94	7.89	10.94
1986														
December	9.00	8.46	8.85	9.14	9.54	7.98	8.64	9.27	5.48	7.53	6.91	9.28	7.96	10.92
September	9.39	8.88	9.26	9.48	9.95	8.09	8.76	9.36	5.49	7.46	6.97	9.55	8.15	11.48
June	9.16	8.67	9.05	9.23	9.70	8.54	9.32	9.89	5.57	7.55	7.23	9.64	8.24	11.21
March	8.93	8.30	8.75	9.06	9.60	8.61	9.05	9.78	6.07	8.32	7.16	9.84	9.01	11.17
1985														
December	10.56	9.99	10.30	10.75	11.19	10.00	10.28	11.09	7.34	11.66	8.40	11.67	9.60	13.57
September	11.95	11.29	11.73	12.07	12.69	10.60	11.05	12.52	8.36	13.30	9.74	13.66	10.88	15.63
June	11.93	11.16	11.60	12.16	12.81	10.25	10.83	11.97	7.46	11.83	8.59	12.22	9.48	13.78
March	13.59	12.90	13.45	13.86	14.13	11.62	12.32	12.98	8.13	13.32	9.15	13.33	10.48	15.12
1984														
December	12.96	12.54	12.79	13.02	13.49	12.25	12.97	13.71	8.26	14.10	9.65	13.73	10.96	15.60
September	13.95		13.38	14.13	14.35	12.31	13.31	14.28	8.64	14.86	10.43	14.48	11.90	16.97
June	15.32		14.96	15.25	15.76	13.28	14.22	14.85	9.85	17.01	11.51	15.88	13.34	18.84
March	14.16		13.78	14.04	14.66	12.40	13.12	13.55	9.65	16.89	11.37	15.64	12.81	18.77
1983														
December	13.46	12.96	13.15	13.50	14.22	12.18	12.61	13.34	8.83	15.32	10.43	13.95	11.97	17.04
September	13.20	12.66	12.87	13.27	13.98	11.70	12.15	12.72	9.03	15.26	10.17	14.00	10.86	14.94
June	13.13	12.32	12.63	13.54	14.04	11.34	12.05	12.47	9.37	15.11	10.75	14.29	10.84	14.29
March	13.26	12.23	12.66	13.82	14.34	11.17	11.79	12.51	9.35	14.77	10.19	14.14	11.13	14.41
1982														
December	13.50	12.30	12.68	14.37	14.65	11.63	12.20	13.26	9.22	15.20	10.56	14.77	11.43	14.79
September	14.39	12.97	13.76	15.31	15.52	12.84	13.49	14.11	9.64	15.91	11.30	15.78	12.15	16.17
June	16.37	15.55	16.04	16.56	17.32	14.30	14.69	15.67	10.08	14.13	11.96	15.95	13.03	17.33
March	16.19	15.15	15.62	16.64	17.35	14.44	14.81	15.48	10.09	16.74	11.53	15.96	12.74	16.72
1981														
December	16.23	14.88	15.90	16.68	17.45	14.97	15.47	15.83	11.01	16.19	11.72	14.43	13.53	17.58
September	17.56	16.74	17.43	17.84	18.21	14.68	15.28	16.01	11.52	16.74	12.01	14.73	13.96	18.07
June	15.49	14.47	15.06	15.84	16.60	13.75	14.15	15.02	10.94	15.78	11.70	14.05	12.88	16.95
March	14.86	13.96	14.61	15.17	15.69	13.35	13.72	14.57	11.71	16.51	12.20	15.21	13.30	17.63
1980														
December	14.11	13.18	13.91	14.14	15.20	13.15	14.01	14.56	11.49	15.65	12.36	16.86	13.27	17.01
September	13.68	12.91	13.49	13.74	14.58	12.02	12.92	13.76	11.37	15.46	11.83	16.01	12.77	15.71
June	12.04	11.30	11.84	12.22	12.81	10.59	10.97	12.05	10.24	13.41	10.65	14.36	11.52	13.22
March	14.57	13.35	14.57	14.96	15.41	13.09	14.74	15.22	12.15	15.50	12.52	18.27	13.93	19.11
1979														
December	11.85	11.09	11.62	11.97	12.71	10.86	11.49	12.75	10.57	15.89	11.00	15.61	12.23	14.86
September	10.39	9.75	10.10	10.62	11.08	9.60	10.34	10.97	9.81	14.82	10.37	15.29	10.92	13.71
June	9.90	9.39	9.73	10.04	10.45	9.03	9.55	10.49	9.18	13.87	9.83	14.24	10.31	12.93
March	10.02	9.60	9.90	10.06	10.51	9.10	9.63	10.33	9.13	13.73	9.66	14.16	10.04	13.04
1978														
December	9.82	9.47	9.65	9.84	10.31	8.94	9.65	10.48	9.38	13.19	9.89	13.89	10.01	12.77
September	9.23	8.91	9.15	9.29	9.57	8.43	8.82	9.62	8.37	11.80	8.88	12.82	9.15	11.99
June	9.36	8.99	9.24	9.46	9.73	8.84	9.39	9.81	8.35	11.87	8.95	12.74	9.20	12.41
March	8.97	8.61	8.80	8.99	9.47	8.35	8.79	9.24	8.35	12.46	8.82	12.66	8.86	11.39

Note: Yields shown under preferred stocks and common stocks represent averages of ten companies in each quality group.

**Average yield for selected utility bonds in each of the four top quality ratings shown.*

***The Aaa public utility average was suspended January 17, 1984, because of a lack of appropriate issues and reinstated on October 12. The 1984 high and low for the Average Utility and the Aaa Utility, were determined when a Aaa Utility was available.*

† Ratio in percent is obtained by dividing earnings per share by market price per share.

Source: Moody's Investors Service.

TABLE 78

MOODY'S 24 UTILITY COMMON STOCKS END-OF-MONTH AVERAGES

Year	Average	January	February	March	April	May	June	July	August	September	October	November	December
						MARKET PRICE – WEIGHTED AVERAGE – $ PER SHARE							
1989	...	**103.23**	**99.81**	**98.64**	**102.49**	**106.80**	**111.25**	**117.12**	**113.70**	...	...	...	...
1988	97.67	102.86	100.38	95.22	91.65	95.42	96.88	96.51	96.27	98.81	101.32	99.67	100.94
1987	106.26	123.06	118.35	113.48	107.10	103.30	105.83	102.44	105.66	102.59	98.39	96.30	94.24
1986	111.11	97.44	106.11	109.01	102.23	104.88	109.23	117.40	125.66	112.15	117.57	117.99	113.66
1985	87.08	80.47	81.05	83.66	85.91	89.32	92.81	87.22	89.43	83.59	88.10	90.39	94.98
1984	71.16	71.08	68.08	66.74	65.95	66.09	66.49	68.12	70.45	74.77	77.05	78.99	80.16
						DIVIDEND RATE – WEIGHTED AVERAGE – $ PER SHARE							
1989	...	**8.76**	**8.78**	**8.78**	**8.80**	**8.81**	**8.84**	**8.84**	**8.84**	...	...	...	...
1988	8.87	9.17	9.17	8.95	8.98	8.99	9.03	8.69	8.69	8.69	8.69	8.69	8.71
1987	9.12	9.09	9.09	9.09	9.12	9.13	9.13	9.13	9.13	9.14	9.14	9.14	9.12
1986	8.89	8.80	8.80	8.80	8.84	8.89	8.89	8.94	8.94	8.94	8.95	8.96	8.97
1985	8.61	8.44	8.46	8.48	8.52	8.61	8.66	8.66	8.66	8.69	8.69	8.70	8.71
1984	8.26	8.11	8.12	8.14	8.17	8.25	8.30	8.31	8.34	8.34	8.34	8.35	8.37
						YIELD – %							
1989	...	**8.49**	**8.80**	**8.90**	**8.59**	**8.25**	**7.95**	**7.55**	**7.77**	...	...	...	...
1988	9.08	8.92	9.14	9.40	9.80	9.42	9.32	9.00	9.03	8.79	8.58	8.72	8.63
1987	8.58	7.39	7.68	8.01	8.50	8.88	8.63	8.91	8.64	8.91	9.29	9.49	9.68
1986	8.00	9.03	8.29	8.07	8.65	8.48	8.14	7.61	7.11	7.97	7.61	7.59	7.89
1985	9.89	10.49	10.44	10.14	9.92	9.64	9.33	9.93	9.68	10.40	9.86	9.62	9.17
1984	11.61	11.41	11.93	12.20	12.39	12.48	12.48	12.20	11.84	11.15	10.82	10.57	10.44

	EARNINGS – WEIGHTED AVERAGE – $ PER SHARE			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
1989	...	...	...	...
1988	11.27	10.70	10.60	7.55
1987	12.86	12.63	12.36	11.45
1986	12.40	12.72	13.17	13.13
1985	12.66	12.65	12.67	12.53
1984	12.35	12.56	12.48	12.67

Note: Quarterly earnings are for the 12 months ended March 31, June 30, September 30 and December 31.
Source: Moody's Investors Service.

ECONOMICS AND OTHER

SECTION X

TABLE 82

CONSUMER PRICE INDEX, 1965-1988

1982-84 EQUALS 100

Year	All Items		Food and Beverages		Housing	
	Index	Percent Increase	Index	Percent Increase	Index	Percent Increase
1988*	**118.3**	**4.1**	**118.2**	**4.1**	**118.5**	**3.8**
1987*	113.6	3.6	113.5	4.0	114.2	3.0
1986*	109.6	1.9	109.1	3.3	110.9	3.0
1985*	107.6	3.6	105.6	2.3	107.7	4.0
1984*	103.9	4.3	103.2	3.7	103.6	4.1
1983*	99.6	3.2	99.5	2.3	99.5	2.7
1982*	96.5	6.2	97.3	4.1	96.9	7.2
1981*	90.9	10.3	93.5	7.8	90.4	11.5
1980*	82.4	13.5	86.7	8.5	81.1	15.7
1979*	72.6	11.3	79.9	10.7	70.1	12.3
1978*	65.2	7.6	72.2	9.7	62.4	8.7
1977	60.6	6.5	65.8	6.0	57.4	6.7
1976	56.9	5.8	62.1	3.2	53.8	6.1
1975	53.8	9.1	60.2	8.5	50.7	10.7
1974	49.3	11.0	55.5	13.7	45.8	11.2
1973	44.4	6.2	48.8	13.2	41.2	4.6
1972	41.8	3.2	43.1	4.1	39.4	3.7
1971	40.5	4.4	41.4	3.2	38.0	4.4
1970	38.8	5.7	40.1	5.2	36.4	7.1
1969	36.7	5.5	38.1	5.2	34.0	6.3
1968	34.8	4.2	36.2	3.4	32.0	3.9
1967	33.4	3.1	35.0	—	30.8	—
1966	32.4	2.9	—	—	—	—
1965	31.5	1.6	—	—	—	—

Year	Transportation		Gas and Electricity		Electricity	
	Index	Percent Increase	Index	Percent Increase	Index	Percent Increase
1988*	**108.7**	**3.1**	**104.6**	**0.8**	**111.5**	**1.4**
1987*	105.4	3.0	103.8	(1.8)	110.0	(0.4)
1986*	102.3	(3.9)	105.7	(1.3)	110.4	1.4
1985*	106.4	2.6	107.1	1.6	108.9	3.4
1984*	103.7	4.4	105.4	3.8	105.3	6.5
1983*	99.3	2.4	101.5	8.9	98.9	3.2
1982*	97.0	4.1	93.2	13.8	95.8	9.9
1981*	93.2	12.2	81.9	14.7	87.2	15.0
1980*	83.1	17.9	71.4	17.0	75.8	15.5
1979*	70.5	14.3	61.0	10.9	65.6	7.7
1978*	61.7	4.6	55.0	8.9	60.9	7.6
1977	59.0	7.1	50.5	13.0	56.6	6.6
1976	55.1	10.0	44.7	11.5	53.1	6.2
1975	50.1	9.4	40.1	16.2	50.0	13.4
1974	45.8	11.2	34.5	15.4	44.1	17.9
1973	41.2	3.3	29.9	4.9	37.4	5.1
1972	39.9	1.0	28.5	5.2	35.6	5.0
1971	39.5	5.3	27.1	6.7	33.9	6.6
1970	37.5	5.0	25.4	4.5	31.8	3.2
1969	35.7	4.1	24.3	1.7	30.8	2.0
1968	34.3	3.0	23.9	0.8	30.2	1.0
1967	33.3	3.1	23.7	0.4	29.9	0.7
1966	32.3	1.3	23.6	0.4	29.7	0.0
1965	31.9	1.6	23.5	0.0	29.7	(0.3)

**Data beginning 1978 are for All Urban Consumers; earlier data are for Urban Wage Earners and Clerical Workers.*
Source: U.S. Department of Labor, Bureau of Labor Statistics. CPI Detailed Report *and* Monthly Labor Review.

TABLE 83

RESIDENTIAL ELECTRICITY AND CONSUMER PRICE INDEX TOTAL ELECTRIC UTILITY INDUSTRY

Year	Average Revenue per Residential kWh Used	Average Rate per kWh Based on Average of Typical Bills in Cities* Price per kWh for Monthly Use of: 100 kWh	250 kWh	500 kWh	750 kWh	1,000 kWh	U.S. Bureau of Labor Statistics Index Numbers Based on 1982-84=100† Electricity	Consumer Price Index
		(Energy Information Administration)						
1988	7.49¢p	....	....	....	....	....	111.5	118.3
1987	7.45r	....	8.90¢	8.24¢	7.65¢	7.42¢	110.0	113.6
1986	7.43	....	8.89	8.18	7.57	7.46	110.4	109.6
1985	7.39	....	9.19	8.51	7.84	7.75	108.9	107.6
1984	7.17	....	9.04	8.37	7.71	7.64	105.3	103.9
1983	6.83	....	8.63	8.04	7.30	7.28	98.9	99.6
1982	6.44	....	8.29	7.67	7.03	7.00	95.8	96.5
1981	5.86	....	7.93	7.39	6.68	6.64	87.2	90.9
1980	5.12	....	7.10	6.52	5.87	5.82	75.8	82.4
1979	4.43	....	6.11	5.56	4.92	4.87	65.6	72.6
1978	4.03	7.10¢	5.54	4.61	4.36	4.31	60.9	65.2
1977	3.78	6.87	5.39	4.44	4.16	4.10	56.6	60.6
1976	3.45	6.54	5.14	4.17	3.90	3.82	53.1	56.9
1975	3.21	6.15	4.82	3.85	3.57	3.49	50.0	53.8
1974	2.83	5.89	4.60	3.59	3.30	3.23	44.1	49.3
1973	2.38	4.99	3.79	2.82	2.55	2.49	37.4	44.4
1972	2.29	4.65	3.47	2.51	2.26	2.19	35.6	41.8
1971	2.19	4.51	3.34	2.40	2.15	2.07	33.9	40.5
1970	2.10	4.25	3.14	2.23	2.00	1.92	31.8	38.8
1969	2.09	4.09	3.00	2.10	1.90	1.83	30.8	36.7
1968	2.12	4.05	2.96	2.06	1.86	1.80	30.2	34.8

*As determined by the Energy Information Administration in its "Typical Electric Bills." The figures cover rate schedules as of December 31 in all cities with populations of 2,500 or more.

† Data beginning 1978 are for All Urban Consumers; earlier data are for Urban Wage Earners and Clerical Workers.

p Preliminary. r Revised.

TABLE 84

PRODUCER PRICE INDEX – FINISHED GOODS AND SELECTED INDUSTRIAL COMMODITIES

1982 EQUALS 100

Year	Finished Goods		Metals and Metal Products		Machinery and Equipment		Furniture and Household Durables		Fuels and Related Products and Power	
	Index	Percent Increase	Index	Percent Increase	Index	Percent Increase	Index	Percent Increase	Index	Percent Increase
1988	**108.0**	**2.5**	**118.7**	**10.8**	**113.2**	**2.5**	**113.1**	**2.9**	**66.7**	**(5.0)**
1987	105.4	2.1	107.1	3.8	110.4	1.5	109.9	1.6	70.2	0.6
1986	103.2	(1.4)	103.2	(1.1)	108.8	1.5	108.2	1.0	69.8	(23.6)
1985	104.7	1.0	104.4	(0.4)	107.2	2.0	107.1	1.3	91.4	(3.6)
1984	103.7	2.1	104.8	2.9	105.1	2.3	105.7	2.2	94.8	(1.1)
1983	101.6	1.6	101.8	1.8	102.7	2.7	103.4	3.4	95.9	(4.1)
1982	100.0	4.1	100.0	0.4	100.0	5.9	100.0	4.3	100.0	(0.2)
1981	96.1	9.2	99.6	4.8	94.4	9.8	95.9	5.7	100.2	21.0
1980	88.0	13.4	95.0	10.5	85.0	12.1	90.7	9.5	82.8	40.6
1979	77.6	11.2	86.0	14.2	76.7	9.1	82.8	6.8	58.9	26.7
1978	69.8	7.9	75.3	8.7	70.3	7.8	77.5	5.9	46.5	6.7
1977	64.7	6.4	69.3	6.6	65.2	6.4	73.2	4.1	43.6	13.8
1976	60.8	4.5	65.0	5.7	61.3	5.9	70.3	4.1	38.3	8.2
1975	58.2	10.6	61.5	7.9	57.9	15.8	67.5	9.2	35.4	17.6
1974	52.6	15.4	57.0	29.5	50.0	14.4	61.8	11.0	30.1	55.2
1973	45.6	9.1	44.0	7.6	43.7	3.3	55.7	3.5	19.4	13.5
1972	41.8	3.2	40.9	3.8	42.3	2.2	53.8	1.3	17.1	3.0
1971	40.5	3.1	39.4	1.8	41.4	3.5	53.1	2.3	16.6	8.5
1970	39.3	3.4	38.7	7.5	40.0	4.7	51.9	2.4	15.3	4.8
1969	38.0	3.8	36.0	5.9	38.2	3.2	50.7	2.0	14.6	2.1
1968	36.6	2.8	34.0	2.4	37.0	3.1	49.7	2.9	14.3	(0.7)

Year	Coal		Gas Fuels		Electric Power		Crude Petroleum		Petroleum Products, Refined	
	Index	Percent Increase	Index	Percent Increase	Index	Percent Increase	Index	Percent Increase	Index	Percent Increase
1988	**95.4**	**(1.8)**	**71.4**	**(3.6)**	**111.2**	**0.5**	**46.2**	**(16.8)**	**53.9**	**(5.1)**
1987	97.1	(3.7)	74.1	(10.9)	110.6	(1.8)	55.5	18.3	56.8	6.8
1986	100.8	(1.4)	83.2	(15.7)	112.6	0.9	46.9	(44.5)	53.2	(36.1)
1985	102.2	0.0	98.7	(5.6)	111.6	3.1	84.5	(7.4)	83.2	(4.8)
1984	102.2	1.7	104.5	(3.3)	108.2	5.3	91.3	(1.7)	87.4	(2.8)
1983	100.5	0.5	108.1	8.1	102.8	2.8	92.9	(7.1)	89.9	(10.1)
1982	100.0	7.5	100.0	12.9	100.0	10.7	100.0	(8.8)	100.0	(5.6)
1981	93.0	6.4	88.6	23.6	90.3	14.2	109.6	44.4	105.9	19.5
1980	87.4	3.7	71.7	39.8	79.1	18.9	75.9	48.0	88.6	51.7
1979	84.3	4.9	51.3	27.0	66.5	8.0	51.3	25.4	58.4	38.4
1978	80.4	10.4	40.4	10.4	61.6	7.5	40.9	9.4	42.2	4.2
1977	72.8	5.7	36.6	35.6	57.3	12.1	37.4	8.1	40.5	11.6
1976	68.9	(4.6)	27.0	32.4	51.1	7.4	34.6	3.3	36.3	7.4
1975	72.2	16.1	20.4	33.3	47.6	18.7	33.5	15.9	33.8	15.4
1974	62.2	52.5	15.3	28.6	40.1	26.1	28.9	68.0	29.3	73.4
1973	40.8	12.7	11.9	10.2	31.8	6.4	17.2	11.0	16.9	18.2
1972	36.2	6.5	10.8	5.9	29.9	4.5	15.5	(0.6)	14.3	1.4
1971	34.0	21.0	10.2	4.1	28.6	9.6	15.6	7.6	14.1	6.0
1970	28.1	33.2	9.8	11.4	26.1	4.4	14.5	1.4	13.3	1.5
1969	21.1	8.8	8.8	1.1	25.0	0.8	14.3	4.4	13.1	1.6
1968	19.4	3.7	8.7	(7.4)	24.8	0.8	13.7	0.7	12.9	(1.5)

Source: U.S. Department of Labor, Bureau of Labor Statistics, Producer Price Indexes.

TABLE 85

COST TRENDS OF ELECTRIC LIGHT AND POWER CONSTRUCTION*

BY GEOGRAPHIC DIVISIONS – 1968-1989

1973 EQUALS 100

Date	North Atlantic	South Atlantic	North Central	South Central	Plateau	Pacific
Jan. 1, 1989	280	268	278	274	272	288
July 1, 1988	273	263	274	269	270	282
Jan. 1, 1988	260	253	261	257	258	271
July 1, 1987	251	244	253	250	249	262
Jan. 1, 1987	249	242	250	249	248	259
July 1, 1986	249	243	250	249	249	260
Jan. 1, 1986	246	241	247	249	247	260
July 1, 1985	244	240	245	247	247	258
Jan. 1, 1985	243	241	245	249	248	258
July 1, 1984	239	237	241	246	248	259
Jan. 1, 1984	233	233	236	243	244	255
July 1, 1983	231	233	236	242	245	254
Jan. 1, 1983	226	230	231	239	240	250
July 1, 1982	222	227	229	234	236	247
Jan. 1, 1982	218	222	226	231	232	240
July 1, 1981	209	218	215	222	222	230
Jan. 1, 1981	203	210	208	214	216	225
July 1, 1980	193	197	196	203	202	209
Jan. 1, 1980	186	191	190	195	197	200
July 1, 1979	178	182	181	187	188	192
Jan. 1, 1979	168	174	173	178	179	181
July 1, 1978	161	165	165	169	170	173
Jan. 1, 1978	156	161	159	164	166	168
July 1, 1977	154	158	157	162	163	165
Jan. 1, 1977	147	152	149	155	155	157
July 1, 1976	145	148	146	151	152	151
Jan. 1, 1976	140	144	141	146	145	146
July 1, 1975	138	140	140	142	143	141
Jan. 1, 1975	130	133	132	134	133	132
July 1, 1974	119	120	120	122	120	120
Jan. 1, 1974	105	105	104	105	105	105
July 1, 1973	100	100	100	100	100	100
Jan. 1, 1973	95	96	96	95	96	96
July 1, 1972	93	94	94	93	94	94
Jan. 1, 1972	92	91	94	91	92	93
July 1, 1971	87	88	90	88	89	89
Jan. 1, 1971	83	84	86	85	85	85
July 1, 1970	80	81	83	83	82	82
Jan. 1, 1970	77	79	80	80	80	80
July 1, 1969	74	76	77	77	77	77
Jan. 1, 1969	72	73	74	74	74	74
July 1, 1968	71	71	72	73	73	73
Jan. 1, 1968	69	70	71	72	72	72

*Index numbers shown are a composite of over 50 material and labor items included in the Handy-Whitman Index service of cost indexes of construction and equipment, all steam.

Source: Handy-Whitman Index of Public Utility Construction Costs. Published by courtesy of Whitman, Requardt and Associates, Baltimore, Maryland.

TABLE 86

COST OF INDUSTRIAL PURCHASED ELECTRIC POWER AS A PERCENT OF VALUE OF PRODUCT SHIPMENT

U.S. AVERAGE 1981 – 1986

Standard Industrial Classification	Industry	1986	1985	1984	1983	1982	1981
20	Food and Kindred Products	0.9	0.9	0.9	0.9	0.8	0.8
21	Tobacco Manufacturers	0.4	0.4	0.4	0.4	0.4	0.4
22	Textile Mill Products	2.3	2.3	2.3	2.2	2.2	1.9
23	Apparel and Other Textile Products	0.7	0.7	0.7	0.7	0.7	0.7
24	Lumber and Wood Products	1.5	1.5	1.5	1.4	1.5	1.3
25	Furniture and Fixtures	0.9	0.9	0.9	0.9	0.9	0.9
26	Paper and Allied Products	3.9	4.1	3.9	4.1	3.8	3.6
27	Printing and Publishing	0.7	0.7	0.8	0.7	0.7	0.7
28	Chemicals and Allied Products	2.9	3.1	3.1	3.0	3.3	3.0
29	Petroleum and Coal Products	1.6	1.1	1.1	1.0	0.8	0.7
30	Rubber and Miscellaneous Plastics Products	2.1	2.1	2.0	2.1	2.1	2.0
31	Leather and Leather Products	0.8	0.8	0.8	0.8	0.7	0.7
32	Stone, Clay and Glass Products	2.8	2.9	2.9	2.9	2.9	2.7
33	Primary Metal Industries	4.5	4.7	4.8	4.6	4.6	3.8
34	Fabricated Metal Products	1.2	1.2	1.3	1.2	1.2	1.1
35	Machinery, Except Electrical	0.9	0.9	0.9	0.9	0.9	0.8
36	Electric and Electronic Equipment	1.0	1.0	1.0	1.0	1.0	1.0
37	Transportation Equipment	0.6	0.6	0.6	0.7	0.7	0.7
38	Instruments and Related Products	0.8	0.8	0.8	0.8	0.7	0.7
39	Miscellaneous Manufacturing Industries	0.8	0.8	0.9	0.9	0.8	0.8
	Total Manufacturing	1.5	1.5	1.5	1.5	1.5	1.4

Note: 1987 data not available at time of printing.

Source: U.S. Department of Commerce, Bureau of the Census, Annual Survey of Manufactures, Statistics for Industry Groups and Industries.

TABLE 87

WEIGHTED AVERAGE MONTHLY ELECTRIC BILLS (DOLLARS)

BY CENSUS DIVISION AND CERTAIN CLASS OF SERVICE

1987 – 1988

Residential Service

Division	January 1, 1988					January 1, 1987				
	250 kWh	500 kWh	750 kWh	1,000 kWh	2,500 kWh	250 kWh	500 kWh	750 kWh	1,000 kWh	2,500 kWh
New England	$25.06	$45.84	$64.01	$84.87	$199.60	$24.52	$44.72	$61.90	$81.93	$191.35
Middle Atlantic	29.26	52.05	69.84	92.43	203.40	29.42	51.41	68.67	90.79	203.97
East North Central	22.57	39.97	53.57	68.55	145.02	23.21	41.38	55.55	71.62	151.11
West North Central	20.03	36.83	50.91	65.62	136.28	19.87	36.54	50.55	65.22	135.63
South Atlantic	21.95	38.61	54.11	70.13	162.36	21.66	38.28	53.54	69.29	160.11
East South Central	18.52	32.74	45.38	57.98	131.63	18.69	33.07	45.98	58.55	133.84
West South Central	20.64	37.29	51.82	65.95	136.00	20.52	37.05	51.43	65.52	135.38
Mountain	21.11	38.08	54.46	70.30	162.84	20.97	37.87	54.23	70.12	162.51
Pacific	17.13	39.52	59.71	75.58	215.51	16.64	37.60	56.56	78.57	198.83
Alaska & Hawaii	25.71	45.57	65.28	85.11	204.06	23.98	42.11	60.09	78.13	186.30
U.S. Average	$22.26	$41.21	$57.39	$74.15	$171.13	$22.22	$40.88	$56.78	$74.57	$168.69

Commercial Service

	January 1, 1988					January 1, 1987				
	12 kW 1,500 kWh	30 kW 6,000 kWh	40 kW 10,000 kWh	50 kW 12,500 kWh	100 kW 30,000 kWh	12 kW 1,500 kWh	30 kW 6,000 kWh	40 kW 10,000 kWh	50 kW 12,500 kWh	100 kW 30,000 kWh
New England	$177.50	$594.12	$ 896.49	$1,108.35	$2,420.99	$153.94	$572.96	$ 855.04	$1,060.32	$2,309.84
Middle Atlantic	240.57	737.39	1,099.78	1,373.21	2,997.50	237.47	731.31	1,089.39	1,359.61	2,962.97
East North Central	154.57	510.75	797.65	991.19	2,234.41	163.56	537.92	819.27	1,041.75	2,372.88
West North Central	124.27	437.92	675.90	836.40	1,853.36	124.23	442.63	682.57	844.60	1,862.53
South Atlantic	127.76	466.21	724.38	897.41	1,972.87	127.73	465.86	725.17	898.11	1,965.70
East South Central	113.17	411.45	654.51	815.24	1,856.73	114.48	416.40	662.74	825.57	1,881.68
West South Central	128.35	427.02	670.66	837.62	1,825.68	127.24	428.47	671.66	831.19	1,817.98
Mountain	120.64	463.00	742.03	929.77	2,040.00	134.91	460.21	736.71	922.18	2,023.46
Pacific	131.76	480.59	782.00	968.29	2,229.82	130.99	497.08	813.81	1,010.91	2,346.06
Alaska & Hawaii	145.83	564.92	878.92	1,092.37	2,435.35	136.95	538.77	819.08	1,017.58	2,250.17
U.S. Average	$155.06	$523.81	$ 814.21	$1,012.58	$2,251.76	$155.29	$529.65	$ 820.06	$1,023.42	$2,282.20

Industrial Service

	January 1, 1988				January 1, 1987			
	150 kW 30,000 kWh	300 kW 60,000 kWh	1,000 kW 200,000 kWh	5,000 kW 1,500,000 kWh	150 kW 30,000 kWh	300 kW 60,000 kWh	1,000 kW 200,000 kWh	5,000 kW 1,500,000 kWh
New England	$2,601	$5,099	$16,495	$107,645	$2,503	$4,912	$15,505	$102,459
Middle Atlantic	3,386	6,630	21,220	115,950	3,331	6,528	20,941	112,838
East North Central	2,692	5,220	17,332	101,359	2,823	5,490	18,489	108,053
West North Central	2,081	4,057	13,024	79,743	2,077	4,051	12,976	79,631
South Atlantic	2,229	4,434	14,524	85,253	2,248	4,463	14,557	85,583
East South Central	2,208	4,372	13,832	85,865	2,226	4,410	13,926	86,846
West South Central	2,116	4,112	13,360	78,530	2,116	4,153	13,385	79,024
Mountain	2,360	4,606	14,876	88,264	2,245	4,370	14,118	83,246
Pacific	2,343	4,637	13,274	87,408	2,474	4,878	14,993	103,544
Alaska & Hawaii	2,813	5,621	17,750	111,709	2,575	5,221	16,420	102,483
U.S. Average	$2,549	$4,995	$15,879	$ 94,469	$2,572	$5,046	$16,226	$ 97,463

Source: U.S. Department of Energy. Energy Information Administration. Typical Electric Bills.

TABLE 68

CIRCUIT MILES OF OVERHEAD ELECTRIC LINE OF 22,000 VOLTS AND ABOVE IN SERVICE – TOTAL ELECTRIC UTILITY INDUSTRY

BY STATE AND VOLTAGE GROUPS

Division/State	Circuit Miles 1988p	1987r	1986r
Total United States*	**620,628**	**615,842**	**609,240**
Maine	3,809	3,754	3,710
New Hampshire	2,319	2,333	2,279
Vermont	1,783	1,783	1,785
Massachusetts	6,046	6,017	5,918
Rhode Island	713	674	667
Connecticut	1,805	1,805	1,825
New England	**16,474**	**16,366**	**16,184**
New York	20,417	20,210	20,160
New Jersey	6,320	6,278	6,288
Pennsylvania	20,694	20,387	20,222
Middle Atlantic	**47,443**	**46,875**	**46,670**
Ohio	22,199	21,519	21,497
Indiana	15,060	15,006	14,970
Illinois	16,642	16,557	16,570
Michigan	18,080	18,068	18,084
Wisconsin	9,654	9,678	9,616
East North Central	**81,635**	**80,827**	**80,737**
Minnesota	10,081	10,098	10,141
Iowa	10,812	10,857	10,870
Missouri	12,231	12,144	12,138
North Dakota	7,061	7,018	7,009
South Dakota	6,883	6,929	6,884
Nebraska	13,765	13,711	13,654
Kansas	10,178	10,164	10,182
West North Central	**71,012**	**70,921**	**70,878**
Delaware	2,636	2,626	2,551
Maryland	8,655	8,666	8,616
District of Columbia	10	10	10
Virginia	12,798	12,713	12,333
West Virginia	8,320	8,226	8,173
North Carolina	24,141	23,946	23,729
South Carolina	20,351	19,955	19,674
Georgia	22,820	22,673	21,586
Florida	17,340	17,128	16,966
South Atlantic	**117,072**	**115,943**	**113,638**
Kentucky	11,954	11,913	11,603
Tennessee	28,726	28,725	28,186
Alabama	14,227	14,197	13,629
Mississippi	13,659	13,567	13,277
East South Central	**68,566**	**68,402**	**66,695**
Arkansas	7,358	7,239	7,219
Louisiana	11,842	11,875	11,636
Oklahoma	10,187	10,115	9,923
Texas	48,222	47,522	46,811
West South Central	**77,608**	**76,751**	**75,589**
Montana	10,387	10,422	10,291
Idaho	11,765	11,700	11,687
Wyoming	5,064	5,117	5,109
Colorado	7,311	7,195	7,213
New Mexico	7,349	7,230	7,156
Arizona	13,000	12,875	12,793
Utah	6,697	6,675	6,637
Nevada	6,018	5,894	5,769
Mountain	**67,589**	**67,110**	**66,655**
Washington	18,116	17,917	17,718
Oregon	11,656	11,653	11,625
California	41,316	40,948	40,725
Pacific	**71,088**	**70,518**	**70,068**
Alaska	664	662	660
Hawaii	1,478	1,468	1,466
Alaska & Hawaii	**2,141**	**2,130**	**2,126**

Nominal Voltage	Circuit Miles 1988p	1987r	1986r
Total	**620,628**	**615,842**	**609,240**
22,000- 30,000	88,419	86,988	84,843
31,000- 40,000	69,022	68,418	67,979
41,000- 50,000	37,188	37,280	37,270
51,000- 70,000	107,581	107,295	105,613
71,000-131,000	92,843	92,094	92,268
132,000-143,000	66,066	65,921	65,195
144,000-188,000	23,879	23,468	23,329
189,000-253,000	63,858	63,423	62,531
254,000-400,000	45,087	44,367	44,081
401,000-600,000	23,088	22,989	22,532
601,000-800,000	3,599	3,599	3,599

Note: Total may not equal sum of components due to independent rounding.

** Does not include the following miles of line operated by REA Cooperatives: 1988 – not available; 1987 – 71,804; 1986 – 71,302.*

p Preliminary. r Revised.

TABLE 89

CIRCUIT MILES OF OVERHEAD ELECTRIC LINE OF 22,000 VOLTS AND ABOVE IN SERVICE – INVESTOR-OWNED ELECTRIC UTILITIES

BY STATE AND VOLTAGE GROUPS

Division/State	Circuit Miles 1988p	1987r	1986r
Total United States	**488,781**	**485,321**	**481,659**
Maine	3,784	3,729	3,685
New Hampshire	2,319	2,333	2,279
Vermont	1,678	1,678	1,680
Massachusetts	5,914	5,885	5,794
Rhode Island	713	674	667
Connecticut	1,770	1,770	1,790
New England	**16,178**	**16,069**	**15,895**
New York	18,984	18,987	19,035
New Jersey	6,311	6,268	6,278
Pennsylvania	20,694	20,387	20,222
Middle Atlantic	**46,001**	**45,642**	**45,535**
Ohio	22,115	21,434	21,441
Indiana	14,912	14,885	14,863
Illinois	16,418	16,332	16,352
Michigan	17,897	17,888	17,901
Wisconsin	9,574	9,598	9,540
East North Central	**80,916**	**80,137**	**80,097**
Minnesota	9,714	9,726	9,769
Iowa	10,244	10,288	10,311
Missouri	10,969	10,925	10,927
North Dakota	5,007	4,997	4,988
South Dakota	3,501	3,514	3,491
Nebraska	95	94	94
Kansas	10,011	10,019	10,040
West North Central	**49,541**	**49,563**	**49,620**
Delaware	2,539	2,520	2,514
Maryland	8,652	8,663	8,613
District of Columbia	10	10	10
Virginia	11,743	11,656	11,312
West Virginia	8,320	8,226	8,173
North Carolina	23,123	22,990	22,800
South Carolina	16,773	16,521	16,311
Georgia	17,567	17,427	16,881
Florida	12,535	12,444	12,352
South Atlantic	**101,264**	**100,457**	**98,966**
Kentucky	7,972	7,931	7,813
Tennessee	248	246	245
Alabama	10,089	10,059	9,752
Mississippi	9,720	9,628	9,542
East South Central	**28,028**	**27,864**	**27,352**
Arkansas	6,743	6,624	6,675
Louisiana	11,641	11,675	11,435
Oklahoma	8,321	8,288	8,275
Texas	43,802	43,165	42,469
West South Central	**70,508**	**69,752**	**68,854**
Montana	7,979	8,013	7,882
Idaho	10,957	10,925	10,912
Wyoming	3,128	3,129	3,121
Colorado	4,694	4,658	4,677
New Mexico	7,065	7,038	6,964
Arizona	5,959	5,944	5,911
Utah	6,096	6,089	6,062
Nevada	4,780	4,656	4,532
Mountain	**50,658**	**50,451**	**50,060**
Washington	4,176	4,084	4,076
Oregon	6,143	6,141	6,157
California	33,840	33,645	33,535
Pacific	**44,160**	**43,870**	**43,768**
Alaska	50	48	46
Hawaii	1,478	1,468	1,466
Alaska & Hawaii	**1,528**	**1,516**	**1,512**

Nominal Voltage	Circuit Miles 1988p	1987r	1986r
Total	**488,781**	**485,321**	**481,659**
22,000- 30,000	56,552	55,391	54,080
31,000- 40,000	61,366	60,859	60,537
41,000- 50,000	32,719	32,829	32,837
51,000- 70,000	87,510	87,361	86,993
71,000-131,000	74,938	74,281	74,491
132,000-143,000	62,068	61,695	61,237
144,000-188,000	10,180	10,093	10,039
189,000-253,000	47,970	47,763	46,905
254,000-400,000	37,714	37,386	37,223
401,000-600,000	15,359	15,258	14,910
601,000-800,000	2,406	2,407	2,407

Note: Total may not equal sum of components due to independent rounding.
p Preliminary r Revised

TABLE 90

AVERAGE NUMBER OF EMPLOYEES INVESTOR-OWNED ELECTRIC UTILITIES

ELECTRIC DEPARTMENT

Year	Operation and Maintenance	Construction	Total
1988p	**424,564**	**89,178**	**513,742**
1987	425,076	98,792	523,868
1986	422,693	106,971	529,664
1985	403,497	121,006	524,503
1984	395,500	120,600	516,100
1983	397,800	115,400	513,200
1982	388,400	116,700	505,100
1981	375,900	114,600	490,500
1980	368,400	108,200	476,600
1979	356,200	106,800	463,000
1978	341,500	103,000	444,500
1977	326,800	99,700	426,500
1976	317,600	99,100	416,700
1975	310,500	101,000	411,500
1974	311,700	107,400	419,100
1973	307,200	107,900	415,100
1972	299,200	102,300	401,500
1971	295,200	98,500	393,700
1970	290,200	94,700	384,900
1969	282,600	89,900	372,500
1968	279,300	86,000	365,300

p Preliminary

GLOSSARY

Allowance for Funds Used During Construction (AFUDC): An amount recorded by a company to represent the cost of those funds used to finance construction work in progress. See Glossary of Electric Utility Terms.

Capability: The maximum load which a generating unit, generating station, or other electrical apparatus can carry under specified conditions for a given period of time, without exceeding approved limits of temperature and stress.

Capacity: The load for which a generating unit, generating station, or other electrical apparatus is rated either by the user or by the manufacturer. See also Name Plate Rating.

Capital Expenditures: Cost of construction of new utility plant (additions, betterments, and replacements) and expenditures for the purchase or acquisition of existing utility plant facilities.

Capitalization: The total of: Long-Term Debt, Preferred Stock and Common Stock Equity. For balance sheet presentation, several modifications are sometimes made: current maturities of Long-Term Debt are not included in the Capitalization section, but Short-Term Debt (with an original maturity of less than one year) which will be refinanced by Long-Term Debt is sometimes included.

Class of Service: A group of customers with similar characteristics (i.e., residential, commercial, industrial, sales for resale, etc.) which are identified for the purpose of setting a rate for electric service.

Construction Expenditures: Expenditures (may or may not include Interest and/or Other Overheads Charged to Construction) for construction including additions to and betterments, renewals, and replacements of utility plant during a specific period, but not money spent for maintenance or for the acquisition of existing utility systems or segments.

Consumer Price Index (CPI): This index is issued by the U.S. Department of Labor, Bureau of Labor Statistics, as a measure of average changes in the retail prices of goods and services usually bought by two groups. The first group consists of the families of wage earners and clerical workers living in cities. The second group consists of all urban consumers.

Customers, Average: The arithmetic averages of month-end customers in each of 12 consecutive months. For those billed other than every month, the number of such customers is adjusted to a 12-month basis (e.g., for bimonthly billing the number of customers billed, or counted, in each month is multiplied by two and the resultant averaged for the 12-month period).

Demand: The rate at which electric energy is delivered to or by a system, part of a system, or a piece of equipment. It is expressed in kilowatts, kilovoltamperes or other suitable unit at a given instant or averaged over any designated period of time. The primary source of "Demand" is the power-consuming equipment of the customers.

Electric Generation—Net: Gross generation less kilowatthours consumed for generation station use.

Electric Utility Industry: All enterprises engaged in the production and/or distribution of electricity for use by the public, including:

Investor-Owned Electric Utilities organized as tax-paying business usually financed by the sale of securities, in the free market.

Cooperatively-Owned Utilities A group of persons who have organized a joint venture for the purpose of supplying electric energy to a specified area.

Government-Owned includes municipal systems, federal agencies, state projects, and public power districts, and, where the data are not separable, those industrial plants contributing to the public supply.

Expenses, Operating: A group of expenses applicable to utility operations composed of: Operation Expense, Maintenance Expense, Provisions for Depreciation and Amortization, Taxes Other Than Income Taxes, Income Taxes, Provisions for Deferred Income Taxes, Income Taxes Deferred in Prior Years—Credit, and Investment Tax Credit Adjustments—Net.

Fuels, Fossil: Any naturally occurring fuel of an organic nature, such as coal, crude oil, and natural gas.

Industrial Electric Power: Electric generating stations operated by Industrial establishments.

Load Factor: The ratio of the average load in kilowatts supplied during a designated period to the peak or maximum load in kilowatts occurring in that period. Load factor, in percent, also may be derived by multiplying the kilowatthours in the period by 100 and dividing by the product of the maximum demand in kilowatts and the number of hours in the period.

Margin, Percent Capacity: The difference between capability and peak load divided by the capability times 100. Should not be confused with Percent Reserve Margin in which the difference is divided by the peak load.

Name Plate Rating: The full-load continuous rating of a generator, prime mover or other electrical equipment under specified conditions as designated by the manufacturer.

Output, Weekly Electric: The sum of the system output of all investor-owned utilities, rural electric cooperatives, and government power projects in the contiguous United States adjusted for all inter-utility deliveries.

Peak Load: See Demand—The greatest demand which occurs during a specified period of time.

Prime Mover: The engine, turbine, water wheel, or similar machine which drives an electric generator.

Producers Price Index: Formerly known as the wholesale price index, this index is the oldest continuous statistical series published by BLS. It is designed to measure average changes in prices of all commodities, at all stages of processing, produced or imported for sale in primary markets in the U.S.

Revenue, Average: Revenue from the sale of electricity (exclusive or forfeited discounts and penalties) for a particular class of service divided by the corresponding number of kilowatthours sold.

Utility Plant, Electric: All equipment used for the generation, transmission, and distribution of electricity, or an account in which record is kept of this equipment. Includes plant in service, purchased or sold, in process of reclassification, leased to others, held for future use, and under construction, and acquisition adjustments and adjustment accounts, without deduction of Accumulated Provision for Depreciation and Amortization.

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